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American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO., No. 9 SPRUCE ST.

Saturday, July 15, 1854.

The Over-issue of New Haven Stock—Railroad Management.

The Schuyler fraud continues to be the great topic of conversation throughout the city. The disasters necessarily consequent upon it, the numerous complications which it involves, the loss suffered by the company which is the victim of his frauds, the distrust created in railway investments, the reputation enjoyed by Mr. Schuyler, both as a man of more than ordinary ability and of large means, the confidence placed in his integrity, and his mature age, which probably exceeds sixty years, all conspire to render his offence one of the most remarkable in the annals of crime, and to make a profound impression upon the public mind. Speculation is still busy in conjecturing the seductions that led to the first fatal step, the necessity (not yet apparent,) for the use of so large a sum of money as he must have wrongfully received, the means by which he kept his frauds so concealed, the long consequences which are yet to follow from his frauds, and his present whereabouts.

Certain it is that the virtue of no man can be affirmed to be superior to temptation till it is put to the test. Mr. Schuyler had reached the age of sixty enjoying the reputation, as the world goes, of being a straightforward, upright, business man. Up to the day of his failure he had been considered as eminently successful. We had, however, always regarded his success as purchased at the expense of other parties. His reputation for possessing business qualities of a high order, the influential circle in which he moved, and the unlimited confidence which he enjoyed, gave him a paramount voice in the management of numerous schemes.—Yet a blight always seemed to rest upon everything he touched, which lead us to suppose that he used all such schemes to promote his private advantage. He has been the ruling spirit in the New York and New Haven, Illinois Central, Harlem, Saratoga and Whitehall, Vermont Valley and other roads; all apparently good projects in themselves, but rendered comparatively worthless by their excessive *cost*. We have consequently, when we have been appealed to, as has frequently been the case, given *his* connection with *any* scheme as a sufficient reason why no one should buy into it as an investment. From what we had seen, we took it for granted that he would rob any project of which he had control of whatever vitality it possessed. In publishing the late report of the New Haven company in the Journal of the 1st instant, we stated that "it has had its life-blood squeezed of it in the same manner as have the Erie and the Central." We consequently supposed him to be *rich*, though at the sacrifice of those sentiments which regard all public improvements in the light of benefactions, and labors for their construction for the good they accomplish. We did not regard him as most did, as a *model* man in his particular line, but as as an instance where *success* blinded the public mind as to the *means* by which it was reached.

But it is useless to dwell upon considerations like these. The wrong done is past correction.—It only now remains to derive the greatest practical use from its commission.

So long as men can be *corrupted*, striking examples of human frailty are necessary to put us upon our guard. There are now more than 800 railroads in the United States completed or in progress, having a length of line of over 25,000 miles, and involving an expenditure of $600,000,000.—The construction of railroads is comparatively a *new* business, and the universal diffusion of these works must place them under the management of parties who, however honest they may be, are comparatively destitute of experience. Without some striking illustration, showing the necessity for the adoption of every precaution against fraud or mistake, the opportunities for such might be left open in almost every company, which in time might have produced in a large number of cases, catastrophies which are now confined to *one*. There is no company in the United States which embraces so large a proportion of shrewd, selfish, and skilful business men as the above, among whom may be named a number whose avarice carries them to the very verge of the line which separates honest from dishonest dealing. Under the eyes of such men, possessing a very large interest in the road, has this stupendous fraud been committed. If such a thing has been done in high places, what may be done in low. If the shrewdest directors in New York have been deceived, what might not have been done in more credulous communities, where an equally adroit villain would enjoy still greater immunity for fraud? A thunderbolt, therefore, that awakens the whole country to a sense of danger, which discovers an abyss into which any company may be liable to be precipitated, cannot be without a most salutary influence. In this view of the case the New Haven fraud, even as much as it is calculated to create distrust and embarrass the operations of railroad companies, may have its compensations, and save us more in the end than its present *cost*.

It is not to be denied that the tone of railroad management in New York city has been very low. This is one and the principal reason why we have never spoken in terms of higher commendation of railroads terminating here. Certainly the profits of the roads running into New York, which is the commercial emporium of the country, ought to increase in proportion to the increased volume of business and travel, as they approach that emporium. The New Haven road is the sole trunk to

this city for three thousand miles of railway in New England, and in addition to a local business adequate to support a first class road, has a larger *through* business probably, than any road in the country, if we except the lines between New York and Philadelphia. The Hudson river is the main stem for an extensive system of roads radiating from Albany, among which is the Great New York Central, one of the most profitable works of the kind in the country. The Erie forms the most direct route with the West, and has a traffic commensurate with the assumed importance of its line. Yet the value of all three of these roads has been seriously reduced by incompetent or corrupt management. The New Haven tells its own tale. It has been an instrument of fraud from its inception. The late president of the road, Mr. Schuyler, was one of the contractors for construction, though president of the company at the time, and was believed to have made a very large sum by the operation. The line of the road is a favorable one. By an arrangement with the Harlem company, the New Haven was saved the heavy expense which an independent line into the city would have rendered necessary. Yet with all these favorable circumstances the road, previous to the Schuyler fraud, had cost $5,150,000 or, $80,000 per mile, or nearly double the sum the road might have been built for. The balance has gone into commission, profits, &c. From the commencement the management of the road has been one of unscrupulous public robbery, shielded from public reprobation, because believed to be successful. No one of the directors but Mr. Schuyler appears to have interfered in the slightest degree in the direction of the company's affairs.—They were all intent upon schemes of their own. leaving to him the New Haven, an undisputed field in which to carry on his financiering forays. They have been either criminally neglectful of their trust, or are grossly incompetent for the places they fill. What custodians have they been of a great public trust! They very likely consented to serve *only* on condition that their places should be *sinecures* as far as any *labor* or *care* was concerned. Their's are names in which the public have been accustomed to put confidence, and were selected as a means of inspiring a similar confidence in the road. Under the shadow of this confidence, which disarmed suspicion and quieted all investigation, the president of the road had full scope for his villainy. Had they entertained any proper sense of their own responsibility, or any fitness for their places, they would never have placed him in a position where he could perpetrate his frauds with impunity; a position in which, by the single dash of his pen, he could transfer millions from the company or public into his own pocket.

The Harlem has suffered in the same manner as the New Haven, by exorbitant contracts for construction, in which managers of the road were interested, and by similar over issues of stock. Economically constructed, it would have been one of the most profitable roads in the country. Whatever strength it possessed Schuyler and his clique robbed it long ago. He had the same swing in this that he had in the New Haven, and the only use the other directors served was to make up the number required by the charter. The Erie road has been victimised to the tune of $10,000,000 by incompetent or corrupt management. We have, however, the gratification of expressing our belief that a great improvement has been effected in the management of this company within a year past. A speculating, and we believe an unscrupulous treasurer, and a superintendent in whom the *rowdy* shone more conspicuously than any useful quality, have given place to better men. No one believes that the former treasurer had any higher object in view than to fill his own pockets, and events that have recently transpired render it probable that the company were, on many accounts, very fortunate in getting rid of him when they did. We can claim a little merit in being instrumental in the wholesome reforms that have been effected. No one now, not even the warmest friend of the company, questions the propriety or expediency of our strictures upon its management, however harsh they may have appeared at the time. Had our intimations or reference to the Harlem and New Haven railroads been similarly heeded, a great good might have been the result. Had the attention of the stockholders, as in the case of the Erie, been directed towards their management, the recent fraud never could have been committed.

While the Hudson River railroad has suffered less from *corrupt* management than any other, and while, with some few exceptions, the directors have acted with a single eye to the best interests of the company, yet it has suffered hardly less than any from unwise and incompetent management. From the comencement of this enterprise there has been a continual *row* in the internal administration of its affairs. Through the influence of one man, presidents, engineers, superintendents and other important officers have appeared and disappeared with all the rapidity and regularity of the actors in a drama. Men who acquired an honorable reputation upon *other* works have been sacrificed on this to mere caprice or whim, or because they became obnoxious to "a power behind the throne." It is no use to tell us that the constant changes that have been going on in this road have been either necessary or proper, or that the company have not suffered seriously in consequence. We freely admit the merits of this work. We believe in its ultimate success. We do not reproach the general good faith of its managers, but like all other *New York* projects, *bad* management has been the great drawback to its success.

In no part of the country are found a class of men who take better care of their own affairs than New Yorkers; while there are none so indifferent to what does not immediately concern them. Just consider how the city is plundered without a hand being lifted to arrest abuses which are as palpable as the noon-day sun. The New York merchant is generally a successful one. He is always too much oppressed with his own business to have any energy, disposition or time left to attend to outside matters. Believing New York to be the point to which *all* the trade of the country must flow, he is entirely insensible to those appeals to his public spirit, which consists in an immediate sacrifice for a greater ultimate good, which secures contributions of time and money, of gratuitous and patient labor for a *common* advantage.—Make an appeal to the public spirit of a New Yorker and he will tell you that he shall get without effort, all that you propose, with. Public spirit is an unknown commodity. The value of a reputation for skill or integrity is what it will *sell* for. A man's position, reputation, influence, are all regular articles of merchandize. There are exceptions, we admit; but the rule is as we have stated. It is notorious that for three years past the city government has been regularly up for sale to the highest bidder. Just look at the myriads of *bogus* Companies; Cumberland, Parker Vein, Llangollen, Phœnix; Coal, Copper, Zinc, Gold, Silver and Lead Companies, all hatched up in this city, for the purpose of putting their worthless securities upon the public. The getting up of such Companies, and dealing in their securities, is one of the favorite modes in which our citizens exercise their propensity for gambling, who have too great a regard for their reputations to be seen at a *faro* table, or *bowling* saloon. The standard of morality is not too high to allow the most fastidious to play for stakes, the amount of which are measured by the extent to which the public can be imposed upon. All such speculations are disgraceful alike to the reputation of the city, to the parties engaged, and demoralizing in the highest degree to the general tone of management of *fiduciary* trusts.

All such abuses must be corrected. The tone of management must be raised. Directors must be appointed, *not* for credit attached to their names, or for the purpose of giving currency to a project, but for the qualifications they possess, and the service they will perform. If a proper discharge of the duties of a director will take *time*, let this time be well paid for. Every director in a Company must be made to feel a sense of his responsibility, which is the only way in which a proper degree of accountability can be secured. The Schuyler fraud has disclosed to us our weak spots. If it should produce that degree of reform as to correct existing abuses and deficiencies in Railroad management, it will amply compensate us for all it has cost.

Sault Ste. Marie Canal.

We are glad to learn that the Company engaged in the construction of this work, are still of th opinion that they shall be able to finish the Canal within the time specified in the contract. It should be done, if within the bounds of possibility; for its importance in opening the only barrier to direct access to the mining region, is almost inconceivable. The large amount which will be saved in shipments both ways, says the Lake Superior *Journal*, and the time which is now consumed in re-shipments at this place would *foot up* to the astonishment of every one. Let any one set himself down and figure up the probable difference and he will be convinced.

Every effort is now being made on the part of the Government, as we are informed, to remove every obstruction to the navigation, whereby our largest class of vessels will be enabled to make the entire trip from the head of Lake Superior to Buffalo; and even, if they choose, to the Atlantic Ocean—from thence to any point on the habitable globe accessible by water.

The iron interest is suffering, more than any other, for the want of more direct communication with a market. Thus far the energies of those interested in this important branch of mining business have been checked and almost paralyzed. The time, however, is now at hand when they can see out of the woods.

We look forward with the expectation of seeing a continuous line of vessels, within almost hailing distance of each other, from the head of Lake Superior to the foot of Lake Erie, as soon as the Canal shall be finished.

Railway Accidents.

Report to the Lords of the Committee of Privy Council for Trade, classifying the causes of the principal accidents which have occurred on Railways of the United Kingdom, during the year 1853.

RAILWAY DEPARTMENT, Board of Trade, WHITEHALL. February 28, 1854.

In analysing the reports which the inspecting officers of this department have made upon the accidents which have occurred on railways during the year 1853, I have endeavored to classify the causes which have led to the several accidents in such a manner as to point out what are the influences which the system of management and the discipline on railways have had in causing them.

The total number of persons who have been reported to your lordships as having met their death on railways during the year 1853 is 305, and the total number of injured is 449; and of these the total number of passengers who have suffered from accidents would appear to be 64 killed, and 300 injured; and of this number 36 have been killed, and 280 injured from causes beyond their own control. The returns of accidents for the half years ending 30th June and 31st December, 1853, respectively, which have been already laid before your lordships, exhibit a detailed account of these accidents. From these reports it would appear that the total number of accidents to trains and engines which have been reported by Railway Companies as having occurred during the year 1853, is 103. Of these 76 have been more especially brought before the notice of your lordshsps by the reports* of the inspecting officers, or by the correspondence which has taken place upon them. These accidents may be generally classed as

1. Accidents appertaining to the rolling stock and road.

II. Accidents appertaining to the management of railways.

Under the head of accidents appertaining to the rolling stock and road of railways may be classed the following—

1st. Accidents from engines or carriages leaving the rails.

2nd. Accidents from trains running through facing points into sidings.

3rd. Accidents from persons in trains being struck against works adjacent to the line.

4th. Boiler explosions.

Under the head of accidents appertaining to the management are classed—

1st. Collisions on double lines of railway.

2nd. Collisions between trains at junctions.

3rd. Collisions on single lines between trains meeting in opposite directions.

4th. Miscellaneous.

The accompanying table will show generally the main causes from which these accidents have arisen.

	Number of accidents.	Causes arising from the Rolling Stock on the Road: Neglect of: Purely accidental.	Neglect of: Rolling stock.	Defective construction of: Road.	Defective construction of: Rolling stock.	Defective construction of: Road.	Defective construction of: Deficiency of engine power.	Insufficient supply of means for securing safety: Deficiency of breaks.	Insufficient supply of means for securing safety: Want of communication between guard and engine driver.	Insufficient supply of means for securing safety: Want of adequate signals.	Insufficient supply of means for securing safety: Want of time-pieces.	Insufficient supply of means for securing safety: Accidental.	Causes attributable to the Management. Defective Discipline: Defect. or inadequately enforced system.	Defective Discipline: Insufficient or inadequately enforced regulations.	Defective Discipline: Defective system for securing intervals between trains.	Defective Discipline: Negligence of inferior servants.
1st.—Accidents appertaing to Rolling Stock, or to the Road																
Accidents from engines or carriages leaving the rails	24	10	3	5	5	6	..	2	2	..	2	..	1	4	1	3
Accidents from trains running through facing points	2	..	..	..	..	1	..	..	..	..	..	..	..	1	..	2
Accidents from persons in trains being struck against works adjacent to the line	4	..	..	1	3	..	..	..	..	..	..	..	..	1	..	..
Boiler explosions	3		2	..	..	..	..	..	..	..	..	..	..	..	..	1
Total of this class	33	10	5	6	8	7	..	2	2	..	2	..	1	6	1	6
2ndly.—Accidents appertaining to the Management of Railways																
Collisions on double lines of railway from trains following each other	30	2	..	..	..	..	3	2	1	10	6	2	12	24	14	19
Collisions at junctions	2	..	..	..	..	..	..	1	..	2	1	..	..	1	..	..
Collisions on single lines between trains meeting in opposite directions	8	2	..	..	..	..	..	3	1	1	..	..	1	8	..	2
Miscellaneous	3	..	1	..	..	2	..	1	..	..	..	..	..	3	..	1
Total of this class	43	4	1	..	..	2	3	7	2	13	7	2	13	36	14	22
Total of both classes	76	14	6	6	8	9	3	9	4	13	9	2	14	42	15	28

But inasmuch as several of these accidents are classified under more than one head, it is desirable to analyse them further as follows, viz.: Accidents appertaining to the rolling stock and road.

1. *Accidents from Engines or Carriages leaving the rails.*

There are twenty-four cases of accidents to trains where the engines or carriages broke down or left the rails. These may be further divided into—

1. *Accidents beyond the Control of the Management.*—Three accidents may be placed in this division, which were occasioned solely by the neglect of the platelayers who were employed in the repairs of the line. In nine instances the accidents arose from the fracture of machinery, viz. tyres of wheels, axles, or springs, in consequence of internal defects in the material, which could not be detected by external scrutiny. In one instance the cause of the accident could not be ascertained; some of its resulting consequences, however, might have been lessened, had a communication existed between the guard and engine driver.

(1.) *Accidents which might have been guarded against.*—In five instances the accidents were caused by the bad condition of the road; but in one of these instances, the worn condition of parts of the carriage would appear to have had some influence in causing the accident, and in another, the effect produced by the defective condition of the road appears to have been much increased by its mod of construction. In one instance the accident appears to have arisen from a considerable internal defect of the material, but which might apparently have been traced on the surface by careful examination. In three instances the accidents would appear to have arisen from the construction of the engine and road, or from the neglected condition of parts of the line. And in two cases, the peculiar construction of the engine, carriage and road, combined with the defective regulations of the Company, appear to have caused the accidents. It would appear, that of these twenty-four accidents, thirteen, or little more than half, may be classed as out of the control of the management of the Company, of which three were due to neglect of inferior servants, and nine to fracture of machinery from internal defects; and the cause of one has not been ascertained. The remaining eleven accidents might have been prevented by proper management.

2.—*Accidents from Trains running through Facing Points into Sidings.*

Two accidents have occurred from facing points having been wrongly set, which have caused collisions by admitting trains into sidings. The immediate cause of both accidents was the negligence of inferior servants; but in one case the use of facing points at the place highly improper, and in the other, the regulations of the Company were not sufficient for ensuring safety.

3.—*Accidents from Persons in trains being struck against Works adjacent to the line.*

There are four cases of accidents, from passengers having been struck against bridges or works adjacent to the line; of these, two were due to the use of improperly constructed carriages; one to the improper use of cattle trucks for conveying passengers; and one to the defective construction of a tunnel.

Accidents from Boiler Explosions.

Three cases of boiler explosion have been reported upon. In one, the accident was due to the negligence of an inferior servant. In another case the boiler was much worn; and in the other case the arrangements of the Company would appear to have had a bearing upon the accident. It would therefore appear, that of the thirty-three accidents considered as appertaining to the rolling stock and road, only fourteen can be assumed to have been due to causes over which the management of the

* In some instances these reports contain more than one case of accident; and in two cases of accident the causes have been obtained from the reports of the companies.

Companies had no control, whilst the remaining nineteen accidents are all more or less traceable to want of care on the part of the superior officers of the Companies, and in some cases to undue economy.

ACCIDENTS APPERTAINING TO THE MANAGEMENT OF RAILWAYS.

1.—*Collisions between Trains on Double Lines of Railway.*

Thirty accidents are contained in this class, of which six appear to have been occasioned by trains shunting at sidings or at stations. In only two cases were the trains which were run into delayed by purely accidental causes, and in one of these cases the accident was partly due to the negligence of the guard, and partly to unpunctuality caused by an improper system of working. In the other case, which was the one on the Great Southern and Western railway at Straffan, a want of break power, an inadequate supply of signals, inefficient regulations, and a defective system for securing a proper interval between trains, were combined with negligence in the inferior servants, to produce the accident. In one case the accident was partly due to the unpunctuality, over which the management of the Company had no control, but it was also occasioned by the system of working the line not being sufficient for securing a proper interval between trains. Of the remaining twenty-seven cases, the negligence of inferior servants of the Company appears to have partially contributed to cause seventeen accidents, but the other causes which combined with neg'igence were as follows, viz.:—Sixteen of the accidents were attributable to insufficient or inadequately enforced regulations. In six cases the system for securing proper intervals between trains is stated to have been defective; in seven cases the accidents were attributable to unpunctuality caused by an inefficient system; in one case, deficiency of engine power and of breaks; in five other cases, the insufficiency of signals; in another, the want of time-pieces; and in another, the want of communication between the guard and the engine driver, contributed to cause the accidents. Of the remaining ten cases, three were due to the insufficiency of the regulations of the Company, combined in one case with want of time-pieces among the Company's servants, in another with the want of adequate signals, and in the third case both signals and time-pieces were deficient. In six instances, the accidents were due to the want of a proper system for securing intervals between trains. In five of these, the accidents were also attributable to the insufficiency of the regulations; and in three, the accidents were partly attributable to unpunctuality, not beyond the control of the management. In two instances the want of time-pieces, and in another the want of adequate signals contributed to cause the accidents. One accident was due to unpunctuality, caused by a defective system of working, combined with the inadequacy of the signals. It would thus appear that twenty-seven accidents out of these thirty might have been preventedby the exercise of a proper degree of care on the part of the managers of the Companies; and in the other three cases the serious consequences of the accidents would probably have been averted, had the Companies' regulations and systems of working been well framed, and had proper discipline been maintained.

2.—*Collisions between Trains at Junctions.*

Under this head, two accidents have been reported upon during the year. In both cases the signals were insufficient; but in one case the danger from this cause was aggravated by the driver and fireman of one of the trains being unacquainted with the road, the servants on the line not being supplied with time-pieces, the breaks on the trains being insufficient, and the regulations for working the line defective.

3.—*Collisions from Trains Meeting on a single line*

There are eight cases of accidents from trains meeting on a single line. In two instances the accidents occurred near the junction of a single with the double line, and were due partly to the want of break power in one of the trains, but chiefly to insufficient regulations. In one of these cases the want of adequate signals, and in the other, the negligence of an inferior servant, was combined with the other causes. The remaining six accidents were attributable to insufficient regulations for ensuring safety, combined in one instance with the negligence of an inferior servant; in another, with want of break power; and in a third, which was the most formidable (viz., the accident near Oxford, on the Buckinghamshire railway), the insufficiency of the regulations was combined with a want of communication between the guards and engine drivers.

4.—*Miscellaneous.*

Under this head may be mentioned three accidents; of which one occurred in consequence of the direct neglect, or rather violation, of the ordinary rules under which the line was worked, by the superior officers of the Company; and another was the result of insufficient regulations, combined with a want of break power and a defective construction of gates at a level crossing. The third accident occurred in consequence of some passengers having got out of a train on the wrong side, and having been run over. This was due to the neglect of the regulations for locking the doors of carriages on the off side, occasioned by the want of proper platforms at many stations.

REVIEW OF THE CAUSES OF THE ACCIDENTS.

Hence it appears that almost all these accidents arose from a combination of several of the causes above enumerated. In only five of the seventy-six cases of accidents to trains which have been mentioned above, did purely accidental circumstances alone cause the accidents; and in only eleven other cases were purely accidental circumstances combined with other causes to create the accidents. In only twenty-eight cases was the direct negligence of inferior servants a contributing cause of the accidents; but in some of these cases the negligence can be traced either to the men having been overworked or to defects in the state of discipline. The other causes which contributed to the accidents were within the control of the managers of the lines, and appear to have been as follows:—

1.—*Cases referable to undue Economy.*

Under this head the insufficient supply of means for securing safety, such as insufficient engine power, breaks, signals, time-pieces, &c., and the absence of a communication between the guards and engine drivers, would appear to have contributed to cause the accidents in thirty-eight instances; and the neglected condition or the defective construction of the rolling stock and the road appear to have contributed to cause the accidents in forty-three instances.

2.—*Cases referable to an Inefficient System and a defective state of Discipline.*

The unpunctuality of trains appears to have contributed to cause accidents in fourteen instances. Insufficient or inadequately enforced regulations contributed in forty-two instances to cause the accidents. And a defective system for securing proper intervals between trains would appear from these reports to have contributed to cause accidents in fifteen instances. It is desirable to point out the principal causes of accidents under these two heads.

(1st.) *Cases referblea to undue Economy.*—Under this head may be classed a reduction of the number of servants below what was required for the efficient working of the line, the postponement of the requisite repairs, alterations, or additions to works, &c., and the overworking of the carrying stock. When the servants have been reduced in number below what the efficient working of the line has required, the remaining servants have been overworked. This practice involves considerable danger, because the safe working of a railway depends upon the servants being always on the alert. The signalmen and pointsmen must always be on the look out for trains, and attend carefully to their signals and points, whilst the guards, engine drivers, and firemen should, whilst on the road, have their attention continually directed to the safety of the train—and it is perfectly impossible for men, however strong they may be, to keep a proper look out if their energies are paralysed by fatigue. Yet, amongst the accidents which occurred last year, it will be found that in one case men who came on duty at six A. M., were sent out with a train after having worked to between ten and eleven P. M.; and in another, men who were sent out with a train in the middle of one day were continually on duty till the evening of the next day. The reduction in the number of servants has also contributed to accidents by causing engine drivers and firemen unacquainted with the road to be sent with trains. To this cause was partly attributable a collision which occurred at the Euxton junction on the North Union Railway. Several of the accidents occurred from the permanent way on some lines having been allowed to become very much deteriorated. But the accidents which occurred directly from this cause were not the whole amount of injury which resulted to the Companies and the public from this deteriorated condition of road. For a bad road reacts upon the carryiug stock; and it is probable that many cases of broken tyres and axles, which were considered as purely accidental, were due to the blows to which the wheels had been subjected in passing over bad joints. In other cases the accidents were attributable to the insufficiency of the siding accommodation, the inadequacy of the signals at the newly constructed sidings and to the servants of the Company not having been supplied with a means of measuring time. As regards this latter point, it is to be observed that on lines of railway of large traffic, where the trains are worked to carefully regulated time-tables, safety and punctuality must be to a great extent dependent upon a correct knowledge of time being possessed at all times by the Company's servants. In other accidents to which unpunctuality has been a contributing cause, this unpunctuality can be traced to undue economy. In some cases the supply of engines has been limited, and the trains have been worked upon a system which entailed that unpunctuality of a train in one direction affected that of the corresponding train in the opposite direction. In other cases trains have been forwarded with an insufficient supply of guards and of breaks, &c. It has been the practice on some lines to effect a saving in the working expenses, by contracting with engine drivers for working the trains, and in others by giving to engine drivers a direct premium for reducing the consumption of coke, below an average amount. These practices, unless guarded by very carefully framed provisions, contain important elements of danger.

(2*nd.*) *Cases referable to an Inefficient Sytem and Defective Discipline.*—On some lines of railway in an efficient state of repair, accidents have occurred which were due either to the defective system under which the lines were worked, or to the rules not having been strictly enforced. In some of the cases of accidents, it would appear that the regulations have been such that the inferior servants of the Company have great difficnlty in complying with them, under even the ordinary exigencies of the traffic; and other accidents have arisen from a violation of rules, which would appear to have been permitted on previous occasions without rebuke from the superior officers. In many cases the rules have been inoperative from the responsibility of carrying them into effect not being clearly fixed upon particular individuals. In other cases it will be found that accidents have occurred owing to the system of issuing regulations having been loose and negligent. Of the accidents which have been classed as those due to the management of railways, a very large proportion have occurred to trains following each other upon the same line of rails. If the trains had been always punctual, and if no train had been allowed to start without the driver having been furnished with carefully framed time-tables, to be rigidly adhered to, these accidents would probably not have occurred; under such circumstances the use of signals would be

of less importance, and they would occupy the position of being auxiliaries to safety; but the reports on accidents will show that on some railways mineral trains, and even occaslonal goods trains, have been allowed to run without the engine driver having been furnished with any instructions as to the time at v hich he was to pass or stop at the several stations, and on other railways where carefully framed time-tables have been published regularly for the mineral and other trains, these time-tables have been allowed to be practically disregarded. In many cases, the punctuality of trains has been much interfered with by the unpunctuality of other trains in connection with them, and trains timed to follow, or to be passed at stations by other trains, have been frequently detained by the unpunctuality of those latter trains—this latter cause of unpunctuality has arisen on lines where the traffic is conveyed in trains at different rates of speed, but its effects might in some cases have been remedied to a considerable extent, had a very much more extended use been made of the electric telegraph in conducting and organising the traffic. It will be found, therefore, that in the ordinary condition of railways at the present time, punctuality is not sufficiently attended to, and that in order to secure a sufficient interval between trains, lines are practically worked to a very great extent by signals. Several of the cases of accidents will show that to ensure the due exhibition of signals, it is the custom to organise as many checks as possible upon the progress of trains; and for this purpose a system is in use on many lines of railway by which guards of trains as well as station masters keep a record of the time at which every train passes every station. This record also shows whether the time of running a train has been properly apportioned over the different parts of the line. It will, however, be found that in nearly one-half of the cases of collisions between trains following each other on the same line of rails, the lines do not appear to have been worked under a proper system for ensuring a sufficient interval between trains; and an examination of the cases of this class of accidents will show that the method which has been adopted on almost all lines of exhibiting at stations a signal for a specified time after the passage of a train, has been in some cases insufficient for the purposes of safety. This subject is a most important one as regards the traffic upon lines of railway where the trains are numerous and travel at different rates of speed. On some lines of railway immunity from this class of accident has been secured by the use of the electric telegraph. According to this system, the line is divided into portions, the length being determined according to the amount of traffic and the frequency of trains; a signalman is placed at the extremity of each portion, with a simple description of telegraphic instrument, and no train is allowed to enter any one of these portions until the preceding train has passed off that portion. A special telegraphic wire must be appointed to this service.† This system is in use on almost all railways for working the traffic through tunnels. Accidents from collision between trains following each other on the same line of rails have been attended in some cases with very serious results, in consequence of the Companies not having enforced the plan of placing a break van in the rear of the train. This was particularly exemplified in the accident at Straffan, on the Great Southern and Western Railway in Ireland. The accidents on single lines appear to have been numerous during the past year, and to have been due to insufficient regulations. A single line to be worked safely requiresto be worked under very special regulations, and those regulations are such as to be incompatible with running a large number of trains. Of the systems in use for working single lines, those which would appear to be best adapted for ensuring absolute safety from collisions are, that either one engine should draw every train moving on the single line, or portion of a single line, or that one particular man should accompany every engine or train moving over it. Several single lines of railway have been worked by the electric telegraph, but the safety of this system depends upon the responsibility as to the starting of trains being very clearly defined; and one of the causes of the accident which occurred on the Buckinghamshire Railway at Oxford, was the want of a clear responsibility as to the use of the electric telegraph having been fixed upon individuals. A careful consideration of the several accidents will show that many have arisen from the want of individual responsibility. In many cases the responsibility has not been clearly defined in the rules; and in other cases it has not been practically enforced, and hence, in many accidents, evidently due to positive errors, the blame cannot be fixed upon individuals. In the case of two accidents which occurred last year, attended with fatal results, the coroners' juries returned verdicts of "manslaughter" against superior officers of the Companies: but in neither of the cases were these verdicts sustained in the courts of law.

I have the honor to be,

DOUGLAS GALTON, Capt. Royal Engineers.

† This method of working has been adopted on the South Eastern Railway under the direction of Capt. Barlow, the Superintendent of the line. —*Herapath.*

Production of the Precious Metals.

The following will exhibit the annual product of the precious metals at different periods:—

Countries.	Gold.	Silver.	Total.
		1800.	
America...	$9,000,000	$32,891,521	$41,891,521
Europe....	1,000,000	4,000,000	5,000,000
Asia.....	3,188,349		3,188,346
Africa, &c.	2,050,000	400,000	2,450,000
Total..	$15,238,346	$37,292,521	$52,529,867
		1842.	
America...	$9,124,653	$29,847,963	$38,972,616
Europe....	11,417,598	7,456,218	18,873,816
Asia.....	8,243,429	767,596	9,011,025
Africa, &c.	2,654,387	475,837	3,130,224
Total..	$31,440,067	$38,547,614	$69,987,681
		1848.	
America...	$9,700,000	$29,120,000	$38,820,000
Europe....	20,950,000	7,280,000	28,230,000
Asia.....	12,901,060	4,100,000	17,001,060
Africa, &c.	2,610,000		2,610,000
Total..	$46,161,060	$40,500,000	$86,661,060
		1851.	
America..	$94,434,355	$29,218,467	$123,652,822
Europe...	21,583,269	7,559,368	29,142,637
Asia.....	14,237,658	4,640,756	18,878,414
Africa,&c	3,500,000		3,500,000
Australia.	5,000,000		5,000,000
Total.	$138,755,282	$41,418,591	$180,173,873
		1853.	
America.	$109,156,748	$29,807,456	$138,964,204
Europe..	22,138,914	8,648,937	30,787,851
Asia....	19,847,658	5,197,218	25,044,876
Africa..	4,000,000		4,000,000
Australia	96,000,000		96,000,000
Total.	$251,143,320	$43,653,611	$294,796,931

The following will exhibit the annual product of the precious metals at various periods prior to those named above:—

1492....	$250,000	1600....	$11,000,000
1500....	3,000,000	1700....	23,000,000

It will be perceived from the above that America, ever since its discovery, has been more productive than any other country in the precious metals. The Russian mines were discovered in 1809, but were not extensively worked until 1843. The California mines were discovered in April 1848, and the Australian in February 1851. California is the largest gold producing conntry in the world, the amount obtained from that quarter in 1853 being $99,864,753. Until the discovery of the California mines the quantity of gold produced in America had become nearly stationary.

It will also be perceived from the above that the annual production of the precious metals has become nearly six-fold of what it was at the commencement of the present century. What it will be at the commencement of the next century he would be a bold man who would venture to predict.

The following statement will exhibit the quantity of the precious metals in existence at various periods:—

800....	$160,000,000	1700....	$2,615,000,000
1492....	192,000,000	1800....	3,954,000,000
1550....	320,000,000	1848....	6.488,000,000
1600....	829,000,000	1853....	7,319,240,165

Of the latter amount $4,600,000,000 is in silver and the remainder in gold. The amount of coin in the world is estimated at $2,500,000,000, the remainder being absorbed in watches, plate, jewelry, &c., &c. The annual depreciation by wear and tear of coin is estimated at a tenth of one per cent. per annum.

Journal of Railroad Law.

IN CONSEQUENCE OF ISSUING STOCK WITHOUT AUTHORITY.

Much doubt and controversy in regard to this subject prevails at present both in the "street" and in the Chamber of Commerce; nor shall we at present do anything more than to attempt the elucidation of those principles upon which the ultimate solution of the question referred to will depend.

It may first be observed that by the charter of the New York and New Haven Railroad Company, enacted by the Legislature of Connecticut in 1844, it was provided that the capital stock of the company should be two millions of dollars, with the privilege of increasing the same to *three millions*, to be divided into shares of $100 each,—which shares are to be transferred in such manner as shall be directed by the *by laws* of the company.

It is very doubtful whether restrictions made by a by-law upon the power of the general agents of a corporation is a matter which persons dealing with a company are bound to notice. In the case of Wild *vs.* the Bank of Passmaquoddy (3 Mason, 505,) it was held by Justice Story that a cashier of a bank has prima facie authority to endorse, on behalf of the bank, the negotiable securities held by it. If there be any restriction of his authority through the by-laws of the bank, the court held that in order to avail itself of any such restriction the bank was bound to show that the plaintiff in the above-mentioned case had been duly notified concerning such restrictions, and that the law will not presume that strangers to the by-laws of corporations are cognizant of them.

But Corporations, like natural persons, are bound only by the acts and contracts of their agents done and made within the scope of their authority, as fairly proclaimed to the public or generally understood. In Cox *vs.* the Midland County Railway Company (3 Exchequer R., 268,) it was held that a *station master* or other servan of a railway company could not bind the company by contracts for surgical attendance on injured passengers, the station master having been appointed for the performance of a distinct and limited service. But where the trustees of the Pil-

grim Society of Plymouth were authorised by note to appropriate the funds of the society to the erection of a suitable edifice, and were required by the by-laws to manage the funds of the society, the trustees thereupon entered into a contract for the building, and having exhausted the funds of the society, and there remaining a debt for which they were personally responsible, voted that the treasurer should give a note to one of their number who had paid the debt, without limiting in the vote the time within which such note should be given, it was held that by virtue of their general authority to manage the finances of the society, they had power to give the note at any time during the life of the claim.—Hayward *vs.* the Pilgrim Society (21 Pick., 270).

In fine, if a corporation entrusts its agent with large discretionary powers, any party dealing with that agent, in good faith, is entitled to a liberal interpretation of his rights, and the corporation will not be easily allowed to repudiate the obligations contracted, however treacherous its officer may have been.

From the Hartford Times.

New-Haven Railroad Fraud—Opinions in Connecticut.

Previous to 1853 Schuyler held simultaneously the office of President of four important Railroad Companies, and the responsible office of Treasurer in as many more; and at one time was in the receipt of annual salaries amounting to more than $25,000 in the aggregate. In this strange position, which certainly had the appearance of inordinate grasping after office and emolument, it was manifest that with an attention so divided, it was utterly impossible for him to do justice to any of the concerns placed under his charge. The Norwalk accident, which in various ways has damaged the New York and New Haven Railroad Company to an amount exceeding $500,000 was the first *palpable* fruit of this unavoidable neglect, and after the evil had been done, the Legislature of Connecticut passed a law virtually restricting the Presidency of Mr. Schuyler to this one road. To meet the requirements of this statute, all his other Presidencies were *nominally* transferred to the nourishing care of his immediate relatives or subservient tools.

The imputation of the most gross and culpable negligence, to say the least, must rest upon the other Directors of this Company, having permitted the public to be robbed in this outrageous manner. Why was it that they, claiming to be sharp and experienced men, have allowed Robert Schuyler, the President of the road, to issue unlimited amounts of the stock *without the check of any other signature except his own*—they *well knowing* all the time that he was a Wall-street speculater on an enormous scale, and constantly borrowing large sums of money at high rates of interest? The public will hold them to severe account for this gross neglect of their trust. Two of the false certificates of stock were for 5,000 shares each. Who was the party that took these *monster* certificates, and where was the vigulant suspicion which every man of common sense must have felt upon seeing them, and having them offered to him either for sale or hypothecation? It is manifest that he must either have been an accomplice in the villainy, or a miracle of simplicity or credulity for a Wall-street man, and the public must decide which. It is stated that Schuyler has praticed the same fraud upon other Companies, but whether upon the Harlem or Illinois Central, or both, has not yet publicly transpired. The crime of Schuyler and the gross negligence of his associate Directors will cause distress and ruin to hundreds who have invested their savings in this road. For a less crime in England, Fauntleroy was hung, and in this country offenders are imprisoned for life for public wrongs of a much paler dye. It is a reproach to Law that the greatest criminals should so often escape with the least punishment.

The immediate victims of this crime, the stockholders of the New York and New Haven road have been truly unfortunate. No concern in this country has been so victimized and plundered by its managers from the start, by exorbitant shaves, salaries, squandering, and fraud. By the lease of the Canal Road, a dead loss of $40,000 per annum was saddled upon the Company for 20 years; to help a few of them anagers out of a ruinous investment. Upon a careful inspection of the successive annual reports, it will be seen that the road has never earned the dividends it has paid; the *construction account* in stock and bonds being regularly increased from year to year to an amount much greater than the dividends—proving them to have been paid out of the capital. If it has ever really *earned* anything over its expenses and interest, which is very donbtful, it has been regularly squandered or stolen by the managers. The directors as a body have no interest in the welfare of the concern. At the last annual election, four leading and well-known men were put into the direction, one of whom held only *one*, another *three*, another *four*, and another *ten* shares of the stock. Schuyler was present at the meeting with spurious stock and proxies and put these men into the Board; not as his tools perhaps, but as his most intimate friends, for the express purpose of sustaining him and making him President of the Company. They made no objections to being used for this purpose. The necessary fruit of this sort of management long continued, we now have not only ripe but rotton ripe and fallen from the tree, in shape of the most astounding fraud of the century. The history of this road and of the other roads which have been in the same hands, affords another illustration of the certain ruin in store for all similar concerns which have the misfortune to fall into the fatal grasp of a family clique or gang of corrupt and dishonest managers.

On the supposition that only $2,500,000 of spurious stock and $500,000 of spurious bonds have been issued,—which may prove to be much within the truth—the whole stock and bonds and floating debt of the New York and New Haven Railroad, will stand at the enormous sum of $8,-250,000 for about 60 miles of railroad, with six miles more of double track yet to construct, at a further cost of $120,000. Under these circumstances, it is of course quite impossible that this unfortunate Company, even with the best management, should be able hereafter to earn anything more than its current expenses and the interest upon its debt. It follows, that the public and the dishonest managers have obtained the *whole* benefit of this useful undertaking while its stockholders have been stripped clean. It cannot be too much deplored that this moral and honorable State should have been selected as the theatre for the enactment of this stupendous and unparalleled fraud.

From the New-Haven Palladium.

Some of the Wall-street papers appear to have come rather hastily to the conclusion that the holders of the fradulent stock certificate pledged by the late President and Transfer Agent for his individual liabilities, are entitled to be recognized by the Company as stockholders, thereby increasing the capital of the Company from $3,000,000 to $5,000,000.

But the charter of said Company Sec. 2, provided "that the capital stock of said Company shall be $2,000,000, with the privilege of increasing the same to $3,000,000, and to be divided into shares of $100 each, *which* shares shall be deemed personal property, and be transferred in such manner and at such places as the by-laws of said Company shall direct."

Neither the Directors, or stockholders even, have power to increase the number of shares beyond the prescribed limit. How then can it be claimed that an agent entrusted with the duty simply of attending to the transfer of the shares authorized by the charter, can by a fraudulent certificate of stock, which has no existence, thereby effect what the President, Directors and Company have no power by their charter to do themselves, or to ratify when done by others?

The charter of this Company is a Connecticut charter, and the supreme Court of Errors have recently decided that the Corporation cannot be estopped from denying the validity of a contract made in its name by the agents of the Company, in pursuance of a known public usage, if the contract was one which the charter did not authorize; even though the consideration for the contract had gone into the Treasury of the Company.

It is understood that the fradulent certificates of stock hypothecated by the late transfer agent for the liabilities of the firm of which he was a member, being evidenced only by his own signature, were issued in amounts which ought to have put upon his guard any man of ordinary prudence.

A STOCKHOLDER.

From the New-Haven Register.

It seems to be supposed in Wall-street as a matter of course, that the unauthorized certificates of stock issued by the late President of the New York and New Haven Railroad, must be binding on the Company. But the Supreme Court of Connecticut have decided in the late dase of Hood *vs.* this same Company, that they could not be holden for any engagement of the Company's officers, not authorized by the charter; no matter wheter the person dealing with their officers, knew what their powers are or not. As the charter only authorizes the issue of $3,000,000 of stock, every certificate beyond that amount, according to the doctrine or Hood *vs.* the Railroad, is outside the charter, and of course beyond the power of any officer or agent of the Company. Should not the present officers beware how they move in this matter, without consulting those immediately interested?

MANY STOCKHOLDERS.

Louisville and Nashville Railroad.

We have the recent report of this Company, which from its voluminousness, makes up for the lack of previous favors. The greater part of the Pamphlet is devoted to the Report of the Chief Engineer of the Company.

The total length of line of the road is 185½ miles. The total estimated cost for graduation, masonry, and bridges; $3,436,624; which is at the rate of $18,526 per mile. The estimated cost for superstructure, equipment, stations, &c., is $4,070,000, equal to $22,000 per mile; total cost $7,506,624, or $40,526 per mile. With this estimated cost to *start* with, it will not be extravagant to put the *first* cost of the road at $50,000 per mile.

The line, from the profile's annexed to the report, appears to be a fair one, especially for Kentucky; the surface of this State being exceedingly undulating.

The following statement will shew the cost of the leading items:

			Est'd. cost.
Earth excavation,	(yards)	3,618,000	1,308,424
Rock	" "	963,800	1,010,925
Masonry	" (cubic yards)	62,950	630,982
Bridges	(feet)	5,275	167,910

These prices appear to us to be very large, but they are probably rendered less, by the *kind* of pay which the contractors are to get.

Notwithstanding the above estimates, there is no reason why the road may not cost a much larger sum. As the contractors are paid by *quantities*, these, for aught appears, may be indefinitely increased; so that the above report may furnish no guide as to the eventual cost of the road; the Maysville Road was estimated by the same Engineer to cost $1,400,000. This amount has been expended, yet it is found that $800,000 are still wanting to

complete the road, owing to a vast increase of *quantities* over the *first* estimate. A similar increase would carry the cost of the Louisville and Nashville Railroad to more than $11,000,000, or $60,000 per mile.

The following is a summary of gradients of the Road.

Level	43.79 miles
10 feet and under	10.62 "
From 10 to 20 feet	30.99 "
" 20 to 30 feet	23.61 "
" 30 to 40 feet	19.18 "
" 40 to 50 feet	18,50 "
" 50 to 60 feet	26.16 "
" 60 to 70 feet	12.65 "
Total	185½
Total rise going south	2,514 feet
Total rise going north	2,554 "
Total rise and fall	5,068 feet

The total curvature is 4,127 degrees.

The total means provided are as follows:

Stock sub. by the City of Nashville	$984,600
" " " County of Hardin, Ky.	300,000
" " " " Warren, "	300,000
" " " " Hart, "	100,000
" " " " Simpson "	100,000
" " " " Davidson, Ten.	300,000
" " " " Sumner, "	300,000
" " " " Individuals,	944,100
Total	$3,3280,700

The balance to be raised by an issue of mortgage *bonds*.

The construction of the above is eminently called for, both by the wants of the people upon its line, and of the whole country. There is no *new* project at whose success we should more rejoice. We cannot help expressing our opinion, however, that the Company have committed *two* blunders, which will materially interfere with its success—the adoption of the 6 feet Gauge, and the abandonment of the route by way of *Glasgow*. For the introduction of a *new* gauge into Kentucky, there is no apology. Though the measure may be a popular one *there*, it will effectually cut off the project from any assistance from this quarter. The people of New York are not going to put their money into a work, which adopts the most effectual measures possible of driving from, instead of attracting business to itself, and of fostering the construction of rival lines. Whatever effect the *clap-trap* of wide gauge may have in Kentucky, it won't *take* out of it. If the people of that State are prepared to build their own road, with their own money, they may commit just such follies as suit them; but they must not hope to palm them off upon others.

Another mistake committed is in the location of the road, by which *Glasgow* is avoided. There is to be a Railroad from Cincinnati to Nashville, as well as from Louisville. The Cincinnati line has already reached Lexington, a distance of 100 miles and is well advanced toward Dansville, some 35 miles further. The prolongation of this line upon the natural and convenient route, is through Glasgow. This place which is 80 miles distant from Nashville, is also on the route of the shortest line from Louisville to Nashville. The profiles of both routes shew the one by way of Glasgow, to be a little less favorable in the matter of grades, than the one adopted by the Louisville Company, but the former is shorter, and we presume, cheaper.—We think it altogether probable, many equally favorable grades might be found. The evidence furnished by the above report, taken in connection with the Cincinnati line, shows that the Glasgow route should have been adopted. *One* road from Glasgow to Nashville might have been made common to both lines, and the construction of some 80 miles, and the expenditure of over $3,000,000 might have been saved. The public would then have had one profitable road, instead of two *unprofitable* oues. As before stated, we do not wish to interfere with Kentucky notions of propriety, but should the Louisville Company ask to make New Yorkers participants of their follies, they will find us objecting most *emphatically*.

For the American Railroad Journal.

Car Ventilator.

I have just been reading in your last issue "Waterbury & Atwood's mode of car ventilation." As an old experimenter in "dusters," I am naturally interested in everything of the kind. As a traveler, passing over six hundred miles of road in a week, and every week, none can appreciate better than myself all improvements in excluding dust from the interior of a train; but I must confess that, in spite of the certificates of the *Naugatuck* train to the contrary, the invention of a mode to free cars from dust, and ventilate them at the same time, is yet in the future. As regards Messrs. W. & A.'s mode: suppose you are seated in the 8th car of a train, all the air-currents which pass you are charged with the odors of the seven cars ahead. All the effluvia arising from four hundred and twenty closely packed human bodies will constitute the atmosphere which you breathe. Take a seat in the ventilator of one of our theatres on a crowded night, when all the foul breaths of the audience, and odoriference of boots and feet are passing through, and the comforts of W. & A.'s "healthy respiration" will be appreciated. The true ventilator is a misnomer when applied to such a mode. Experiments made at great expense during the summers of '52 and '53, have established the fact that injectors having a capacity to each car greater than that proposed in the mode under review for the *whole train*, have proven inadequate to create a pleasing atmosphere, and repel the dust from the least opening of the windows or doors. Even the "Paine system," which turned the whole sides of the cars into exhausters, and emptied and refilled the car thirty times in one minute with fresh air, was condemned because the cars were too hot. So, gentlemen inventors, the field is yet open; but let dear bought experience first whisper to you, never hope to ventilate a car or repel dust from its interior by the introduction of air currents, till you can make them enter with a *greater velocity* than that of the train's motion.

New York, July 3d, 1854. P. M. H.

The confessions of "P. M. H." are interesting, as coming from an "old Experimenter" in that line, but he will permit us to suggest, that they would be more to the purpose, if his experiments had been upon the same principle with Messrs. Waterbury & Atwood's plan. He strove to inject the air into each car separately, as we understand it, which is simply impossible, unless he can create a current as strong or a little stronger inside, than that formed outside by the onward motion of the train; while both Waterbury & Atwood, and Mr. Lancaster, by their plans, merely endeavor to effect a circulation of pure air through the train, as it passes through the atmosphere, by preparing channels for its unobstructed communication. We cannot see therefore, how the reasoning of "P. M. H." applies to these cases at all.

Port Dalhousie and Thorald Railroad.

We learn from the St. Catharine's *Post*, that the work on this important undertaking goes on most energetically. A great number of men with steam excavators, &c., are engaged at the Port Dalhousie terminus, where the deepest cutting will be required. The prospects of the speedy completion of the line are very good. The contractor is of the right stamp, and is pushing things forward with great spirit. We trust the entire road through to Lake Erie will soon be under contract.

Canandaigua and Niagara Falls R.R.

The following is the new Board of Directors of the Elmira, Canandaigua and Niagara Falls Railroad: Simeon Benjamin, Alex. S. Diven. Chas. C. Sheppard; Henry B. Bennett, Wm. Antis, Amos Jones. Solomon Gillett, Henry Bradley, James Harris, Francis W. Paul, Alfred B. Field, John S. King, J, P. Giraud Foster.

Terre Haute and Alton Railroad.

At the annual meeting of the stockholders of of the Terre Haute and Alton Railroad Company. held in Shelbyville on Saturday, the 24th ult, the following persons were elected Directors of said Company for the ensuing year: viz. Simeon Ryder' Robert Smith D, .C. Huggins. Chas. Cruft. Samuel W. Moulton. Edwin C. Litchfield, John Stryker, William H. Russell, Electus B. Litchfield, John C. Durant, John F. A. Samford, John B. Jervis and Hiram Sanford. At a meeting of the board held subsequently on the same day Simeon Ryder. was reelected Presidet and Col. O. W. Childs was elected Chief Engineer.

Lexington and Big Sandy Railroad.

At a meeting of the stockholders of the Lexington and Big Sandy Railroad, the following persons were elected Directors for the ensuing year:

Neal McCan, Fayette.
Ben. B. Groom, Clarke.
Joseph Bondurant, Montgomery.
J. M. Nesbit, Bath.
D. K. Weis, Carter.
Dr. Z. Cushing, Greenup.

Richard Apperson, Esq., was re-elected President of the Board.

The report of the President and Chief Engineer shows the road is in a flourishing condition, and rapidly progressing to its completion; there being upwards of 800 laborers employed on the same.

Chesapeake and Delaware Canal.

The Aunual Report of the Chesapeake and Delaware Canal Company gives the receipts from tolls for the fiscal year ending May 31, 1854, at $246, 695, 02, and the expenditures at $200, 131, 46, leaving a surplus applicable for a dividend of $46, 563, 56. In view, however, of the present financial wants of the Company, growing out of the enlargement of its locks' it is recommended that no dividend be now declared' The Company also received during the year, from interests, dividends, rents, &c., the further sum of $15, 429 06, making the total yearly revenue, clear of interest and expenses, $ 61, 992.

The Steubenville Railroad.

The Councils of Pittsburgh have passed an ordinance subscribing $300,000 to the Pittsburgh and Stubenville Railroad Company. This, it is said will be sufficent to secure the completion of the road, the work on which is in a great state of forwardness. We may therfore expect if the Bonds can be negociated on reasonable terms, which is very difficult in the present state of the money market, to witness the completion of the work in the shortest possible time. It is very desirable, in a road constructed principally from the proceeds of the sale of county and city funds, that it

should be prosecuted with vigor, in order that it may begin to earn something to pay the interest. If the work is long delayed, the interest account becomes a very formidable item of expense.—*Pittsburg Gazette.*

American Railroad Journal.

Saturday, July 15, 1854.

Agents for the Journal.

To prevent imposition we feel constrained to state that we have *no regularly authorised agents in this Country.* To persons in the commission agency business or book trade who remit us names of new subscribers with the price of subscription, we allow the usual commission and send the paper as desired, but we hold ourselves responsible for the acts or contracts of no man not connected with this office and regularly authorised by us to do business in our name.

Persons desiring the *Journal* should send their address directly to us by mail and may also remit their subscription to this office in bank notes current in their own State, unless they can conveniently procure funds of this State. All such remittances will be duly acknowledged by mai on their receipt. Persons receiving accounts of ther indebtedness to this office, will oblige us by remitting as above, at their earliest convenience.

Stock and Money Market.

The Stock Market is recovering slowly from its recent excessive decline, though it is still very unsettled. There will be no rapid improvement, till the public shall have the results of the investigations which are now being made into the affairs of our Railroad Companies. It is not probable that any new developments will be made, while the recent frauds will lead to the adoption of precautions which will render their recurrence impossible. The lessons that the public have received, will be a valuable one, and will result, we hope and believe in a much higher tone of Railroad management. Transactions of all kinds for a week past have been principally speculative, though the excessive y low prices must soon attract buyers for investment.

The following table will shew the earnings of Railroads for June, as far as received.

	2854.	1853.
Michigan Central	171,359	119,433
Michigan Southern	185,653	148,946
Macon & Western	19,750	15,592
Pennsylvania	227,652	156,978
Chicago and Rock Island	113,008	new
Cincinnati Hamilton & Dayton	39,975	32,30g
New York and New Haven	70,254	59,738
Ogdensburgh	62,000	48,000
Milwaukee and Mississippi	45,087	18,585
Cleveland and Pittsburgh	47,729	35,825
Indiana Central	27,250	new
Ohio and Pennsylvania	82,059	55,350
Hudson River	128,073	94,978

The following is the comparative Bank Statement for the week ending July 8.

	July 8.	July 1.
Loans	88,347 281	88,601 591
Specie	12,269 318	11,130 800
Circulation	9,195 757	9,068 283
Deposits	72,718 443	71,487 934

Arkansas Midland Railroad Co.

We learn that the Directors of this road, reaching from Helena on the Mississippi to Little Rock have determined to put the first ten miles of their line under contract for immediate execution.

Railway Share List,

Compiled from the latest returns—corrected every Wednesday—on a par valuation of $100.

NAME OF COMPANY.		Miles open.	Capital paid in.	Debt.	Tot. cost of road and equipm't.	Gross Earnings for last official year.	Net Earnings for last official yr.	Dividend for do.	Price of Shares.
Atlantic and St. Lawrence	Maine.	150	1,538,100	2,973,700	5,973,700	254,743	113,520	none	83
Androscoggin and Kennebec	"	55	824,863	1,043,540	2,036,140	177,003	80,053	none	30
Kennebec and Portland	"	72	1,073,673	1,439,694	2,520,981	168,114	100,552	none	41
Port., Saco and Portsmouth	"	51	1,355,500	123,884	1,459,384	208,669	.....	6	95
York and Cumberland,	"	20	285,747	341,100	713,605	23,946	11,256	none	24
Boston, Concord and Montreal	N. H.	93	1,649,278	622,200	2,540,217	150,538	79,659	none	27
Concord	"	35	1,485,000	none.	1,485,000	305,805	141,836	8	104
Cheshire	"	54	2,078,625	720,900	3,002,094	287,768	55,266	5	35
Northern	"	82	3,016,634	.....	.....	328,782	163,075	5	49
Manchester and Lawrence	"	24	717,543	.....	.....	.....	.....	6	88
Nashua and Lowell	"	15	600,000	none.	651,214	132,545	51,513	8	104
Portsmouth and Concord	"	47	.....	.....	1,400,000	.....	.....	none	.....
Sullivan	"	26	.....	.....	673,500	.....	.....	none	10
Connecticut and Passumpsic	Vt.	61	1,097,600	550,000	1,745,516	.....	.....	none	21
Rutland	"	120	2,486,000	2,429,100	5,577,467	495,397	266,539	none	9
Vermont Central	"	117	8,500,000	3,500,000	12,000,000	.....	.....	....	5¼
Vermont and Canada	"	47	1,500,000	.....	1,500,000	Leased to	the Vt. C	ent.	82
Western Vermont	"	51	392,000	700,000	.....	Recently	opened.	none	.....
Vermont Valley	"	24	.....	.....	.....	.....	.....	none	.....
Boston and Lowell	Mass.	28	1,830,000	206,190	2,044,536	434,599	114,098	6	87
Boston and Maine	"	83	4,076,974	150,000	4,111,345	803,024	418,358	8	100
Boston and Providence	"	55	3,160,000	402,326	3,579,041	509,326	226,639	6½	77
Boston and Worcester	"	69	4,500,000	590,541	4,850,754	887,219	413,289	7	96
Cape Cod branch	"	29	421,950	180,000	633,906	68,942	26,412	5	40
Connecticut River	"	52	1,591,110	286,363	1,802,244	258,220	102,098	4	52
Eastern	"	58	2,850,000	1,192,975	3,120,391	620,810	310,875	6	77
Fall River	"	42	1,050,000	6,208	1,050,000	294,183	126,589	8	90
Fitchburg	"	67	3,540,000	191,500	3,716,870	626,659	214,633	6	84¼
New Bedford and Taunton	"	20	500,000	none.	529,964	188,442	46,839	7	117
Boston and New York Central	"	74	1,159,228	953,370	2,221,068	90,315	35,214	none	50
Old Colony	"	45	1,964,070	295,038	2,293,534	374,897	122,866	none	97½
Taunton Branch	"	11	250,000	none.	307,136	159,738	21,490	8	.....
Vermont and Massachusetts	"	77	2,233,939	1,139,615	3,207,818	244,323	13,144	none	11½
Worcester and Nashua	"	46	1,140,000	194,445	1,342,593	182,398	81,807	5	60
Western	"	155	5,150,000	5,319,520	9,953,258	1,525,224	746,736	7	94½
Stonington	R. I.	50	.....	467,700	.....	240,572	110,892	....	68
Providence and Worcester	"	40	1,457,500	300,000	1,791,999	291,417	120,892	6	97
Canal	Conn.	45	922,500	500,000	1,400,000	.....	.....	4	65
Hartford and New Haven	"	72	2,350,000	800,000	3,150,000	639,529	294,269	10	116
Housatonic	"	110	.....	.....	2,500,000	329,041	168,902	none	.....
Hartford, Prov. and Fishkill	"	50	.....	.....	In progres	69,629	.....	none	.....
New London, Wil. and Palmer	"	66	558,861	800,000	1,511,111	114,410	.....	....	..
New York and New Haven	"	61	3,000,000	1,641,000	4,978,487	806,713	428,173	7	83
Naugatuck	"	62	926,000	440,000	.....	.....	.....	8	.....
New London and New Haven.	"	55	750,500	650,000	1,380,610	Recently	opened.	none	40
Norwich and Worcester	"	54	2,121,110	701,600	2,596,488	267,561	116,965	4	53
Buffalo and New York City	N. Y.	91	900,000	1,550,000	2,550,500	Recently	opened.	none	.....
Buffalo, Corning and N. York.	"	132	.....	.....	In progres	.....	.....	none	65
Buffalo and State Line	"	69	879,636	872,000	1,921,270	Recently	opened.	....	180
Canandaigua and Niagara F	"	50	.....	.....	In progres	.....	.....	....	.....
Canandaigua and Elmira	"	47	425,509	582,400	987,627	76,760	39,360	none	.....
Cayuga and Susquehanna	"	35	687,000	400,000	1,070,786	74,241	23,496	none	.....
Erie, (New York and Erie)	"	464	10,000,000	24,003,865	33,070,863	4,318,962	1,800,181	7	62½
Hudson River	"	144	3,740,515	7,046,395	10,527,654	1,063,659	338,783	none	61
Harlem	"	130	4,725,250	977,463	6,102,935	681,445	324,494	4	44½
Long Island	"	95	1,875,148	516,246	2,446,391	205,068	44,070	none	28
New York Central	"	504	23,085,600	10,773,823	33,859,423	.....	.....	....	99
Ogdensburgh (Northern)	"	118	1,579,969	2,969,760	5,133,834	480,137	195,847	....	14½
Oswego and Syracuse	"	35	350,000	206,000	633,598	92,353	46,072	....	70
Plattsburg and Montreal	"	23	174,042	131,000	349,775	Recently	opened.	none	.....
Rensselaer and Saratoga	"	25	610,000	25,000	774,495	213,078	96,737	....	.....
Rutland and Washington	"	60	850,000	400,000	1,250,000	Recently	opened.	....	.....
Saratoga and Washington	"	41	899,800	940,000	1,832,945	173,545	135,017	none	30
Troy and Rutland	"	32	237,690	100,000	329,577	Recently	opened.	....	33
Troy and Boston	"	39	430,936	700,000	1,043,357	Recently	opened.	none	.....
Watertown and Rome	"	96	1,011,940	650,000	1,693,711	225,152	116,706	8	92
Camden and Amboy	N. J.	65	1,500,000	.....	4,327,498	1,888,385	478,413	10	148
Morris and Essex	"	45	1,022,420	128,000	1,220,325	149,941	79,252	7	.....
New Jersey	"	31	2,197,840	476,000	3,245,720	603,942	316,259	10	131
New Jersey Central	"	63	986,106	1,500,000	2,379,880	260,899	124,740	3	.....
Cumberland Valley	Penn.	56	1,184,500	13,000	1,265,143	118,617	76,890	5	.....
Erie and North East	"	20	600,000	.....	750,000	Recently	opened.	....	125
Harrisburgh and Lancaster	"	36	830,100	713,227	1,702,523	265,327	106,320	8	55
Philadelphia and Reading	"	95	6,656,332	10,427,800	17,141,987	2,480,626	1,251,987	7	77
Philad., Wilmington and Balt.	"	98	5,000,000	2,399,166	8,067,285	868,038	541,769	5	74¼

Railway Share List,

Compiled from the latest returns—corrected every Wednesday—on a par valuation of $100.

NAME OF COMPANY.		Miles open.	Capital paid in.	Funded debt.	Tot. cost of road and equipm't.	Gross Earnings for last official year.	Net earnings for last official yr.	Dividend for do.	Price of shares.
Pennsylvania Central	Penn.	250	9,768,155	5,000,000	13,600,000	1,943,827	617,625	....	97
Philadelphia and Trenton	"	30	....	....	....	....	....	....	....
Pennsylvania Coal Co	"	47	....	....	....	....	....	....	102½
Baltimore and Ohio	Md.	381	13,118,902	5,677,103	22,254,338	2,083,420	798,193	7	58
Washington branch	"	38	1,650,000	....	1,650,000	348,622	216,237	8	....
Baltimore and Susquehanna	"	57	....	....	....	413,673	152,536	....	..
Alexandria and Orange	Va.	65	....	....	In prog.	....	....	....	....
Manassas Gap	"	27	....	....	In prog.	....	....	....	....
Petersburgh	"	64	769,000	173,867	1,163,928	227,593	72,370	7	77
Richmond and Danville	"	73	1,372,324	200,000	In prog.	....	....	....	70
Richmond and Petersburgh	"	22	685,000	....	1,100,000	122,861	74,113	none	40
Rich., Fred. and Potomac	"	76	1,000,000	503,006	1,531,238	254,376	113,256	7	100
South Side	"	62	1,357,778	640,000	2,106,467	62,762	....	....	....
Virginia Central	"	107	1,673,684	469,150	2,392,215	210,052	99,077	10	50
Virginia and Tennessee	"	73	2,650,091	707,958	3,545,256	109,268	42,736	none	98
Winchester and Potomac	"	32	180,000	120,000	416,532	89,776	....	12	....
Wilmington and Raleigh	N .C.	161	1,338,878	1,134,698	2,965,574	510,038	153,898	6	....
Charlotte and South Carolina.	S. C.	110	....	....	....	....	....	....	....
Greenville and Columbia	"	140	1,004,231	500,000	In prog.	....	....	....	....
South Carolina	"	242	3,858,840	3,000,000	7,002,396	1,000,717	609,711	7	125
Wilmington and Manchester.	"	...	....	....	In prog.	....	....	....	....
Georgia Central	Ga.	191	3,500,000	418,187	3,465,879	986,074	535,608	8	116
Georgia	"	211	4,000,000	1,214	....	934,424	456,468	7½	....
Macon and Western	"	101	1,013,088	163,000	1,277,334	278,739	149,960	9	101
Muscogee	"	71	....	....	In prog.	59,590	21,731	....	....
South Western	"	50	586,887	150,000	743,525	129,395	71,535	8	....
Alabama and Tennessee River	Ala.	55	....	....	In prog.	....	....	....	....
Memphis and Charleston	"	93	776,259	400,000	In prog.	....	....	....	....
Mobile and Ohio	"	33	879,868	....	In prog.	....	....	....	....
Montgomery and West Point.	"	88	688,611	....	1,330,960	173,542	76,079	8	....
Southern	Miss.	60	....	....	....	....	....	....	....
East Tennessee and Georgia	Tenn.	80	835,000	541,000	In prog.	....	....	....	....
Nashville and Chattanooga	"	125	2,093,814	850,000	In prog.	....	....	....	....
Covington and Lexington	Ky.	38	1,430,150	900,000	In prog.	....	....	....	63
Frankfort and Lexington	"	29	357,218	....	584,902	87,421	44,250	....	80
Louisville and Frankfort	"	65	....	....	....	....	....	....	....
Maysville and Lexington	"	...	....	....	In prog.	....	....	....	45
Cleveland and Pittsburgh	Ohio.	100	1,979,100	1,142,200	3,279,908	432,682	267,278	10	70¼
Cleveland and Toledo	"	147	2,000,000	1,600,000	....	....	....	..	88
Cleveland, and Erie	"	95	....	....	....	....	....	....	....
Cleveland and Columbus	"	135	3,027,000	408,200	3,655,000	777,793	483,454	12	116
Columbus, Piqua and Indiana.	"	46	....	....	2,000,000	....	....	....	65
Columbus and Lake Erie	"	61	....	....	....	....	....	....	....
Cincinnati., Ham. and Dayton	"	60	2,100,000	500,000	2,659,653	321,793	200,967	....	102¼
Cincinnati and Marietta	"	...	....	....	In prog.	....	....	....	62
Dayton and Western	"	40	310,000	550,000	925,000	Recently	opened.	....	75
Dayton and Michigan	"	20	....	....	In prog.	....	....	....	....
Eaton and Hamilton	"	36	....	....	....	....	....	....	56
Greenville and Miami	"	31	....	....	....	....	....	....	....
Hillsboro	"	37	....	....	In prog.	....	....	....	....
Little Miami	"	84	2,668,402	482,000	3,169,733	667,559	352,133	10	111
Mansfield and Sandusky	"	...	900,000	1,000,000	1,855,000	....	....	....	....
Mad River and Lake Erie	"	167	2,387,200	1,767,000	4,110,148	540,518	113,401	....	77½
Ohio Central	"	57	....	....	In prog.	....	....	....	79
Ohio and Mississippi	"	...	....	....	"	....	....	....	....
Ohio and Pennsylvania	"	187	1,750,700	2,450,000	....	Recently	opened.	....	....
Ohio and Indiana	"	...	....	....	In prog.	....	....	....	....
Scioto and Hocking Valley	"	44	750,000	300,000	"	Recently	opened.	....	....
Columbus and Xenia	"	54	1,291,700	26,000	1,310,062	314,434	168,612	10	107
Evansville and Illinois	Ind.	31	....	....	In prog.	237,506	....	....	....
Indiana Central	"	...	....	....	"	....	....	....	77½
Indiana Northern	"	131	....	....	"	....	....	....	....
Indianapolis and Bellefontaine	"	83	....	....	"	Recently	opened.	....	90
Indianopolis and Cincinnati	"	90	1,128,486	1,289,000	1,869,932	Recently	opened.	....	76
Lafayette and Indianapolis	"	62	....	....	....	....	opened.	....	....
Madison, Indianapolis & Peru	"	159	2,647,700	1,241,300	2,400,000	516,414	268,075	10	32
Terre Haute and Indianapolis	"	72	632,387	663,100	1,353,019	105,944	71,446	4	108
Rock Island and Chicago	Ill.	...	....	....	....	....	....	....	....
Chicago and Mississippi	"	135	2,400,000	4,000,000	4,600,000	....	....	....	....
Illinois Central	"	...	....	....	....	....	....	....	....
Galena and Chicago	"	92	....	500,000	In prog.	473,548	286,152	....	123
Michigan Southern and Ind. N.	Mich.	315	....	3,741,564	7,276,616	1,200,922	586,929	17	100
Michigan Central	"	282	....	3,977,563	8,618,505	1,145,598	582,816	8	914
Pacific	Mo.	38	....	non	In progres	Recently	opened.	....	....

The Harlem and New Haven Frauds.

There has been nothing yet stated to show that the over issues of the New Haven stock exceed $1,900,000, though this sum may be increased.—It now appears that Mr. Schuyler did not have control of the bonds of the company.

The over issues of Harlem stock by Kyle were 5,000 shares, of a par value of $50. The bonds of this company misapplied amount to $80,000. The total loss, estimating the stock and bonds at par, is about $330,000. It is stated, we know not with what truth, that the Harlem Company will assume the over issue.

Taking Amounts of Stock.

We learn that all our railroad companies are looking into their affairs to see how they stand. We presume the scrutiny will be general and thorough. The Erie company report all right in that quarter. We hope to have equally good news from others.

Michigan Central Railroad.

The receipts at the Michigan Central Railroad show the following result for the past six months:

	1852.	1853.
December	$64,481 40	$80,094 29
	1853.	1854.
January	37,437 79	60,502 95
February	40,045 92	90,385 19
March	59,469 05	113,257 71
April	104,126 98	145,156 07
May	135,202 50	200,020 02
Total, 1853	$440,763 64	$689,429 23
Increase 35 per cent.		248,665 59
	1853.	1854.
1st week in June	$30,343 37	$46,378 69
2d week in June	27,773 83	41,717 00
Total	$58,117 20	$88,095 69
Increase two weeks.		29,978 49

Is the New Haven Company liable for the fraudulent issues of its Stock.

The liability of the New York and New Haven Company on account of the recent fraudulent issues of its Stock, is a question of great interest to the public, as well as to the parties involved. In the present instance, the rules of law which define the nature and extent of the powers of *Agents*, may be superceded by a provision in the Company's Charter, limiting the *Capital* Stock to $3,000,000. As we understand it, the company had exhausted its power of issuing Stock, consequently any additional issue, made in good faith, would have been invalid. If we are correct in our premises, therefore, the Schuyler issue is not worth the paper it is written upon.

But were it competent for the Company to make further issues of Stock, it is still doubtful whether they would have been bound to acknowledge the recent over-issues. The doctrine, "*facit per alium, facit per se*," though of general application, is always more or less modified by the circumstances of each particular case. The *Agent* cannot transcend the authority usually delegated to such, nor bind his *principal* by any act, not strictly within the range of his prescribed or customary duties. A clerk in a retail store, though he could sell by *piece* any article in it, and put the money in his own pocket, could convey no title, should he attempt to sell them in *gross*, as the law would in such case, regard the purchaser as *connaissant* of the fraud. Neither could a clerk in a Dry goods establishment, convey a title to

the property sold, by receiving *Groceries* in exchange. To bind his *principal*, the sale or act of the Agent, must strictly conform to the usual mode of doing business, as any deviation from this mode is considered as notice to the third party, that the Agent has exceeded his authority.

As Transfer Agent of the New York and New Haven Railroad, Mr. Schuyler had a duty to perform, simply ministerial in its character. He had no authority to raise, nor did he pretend that he was raising, money for the Company. The lender on his fraudulent certificates did not suppose that he was dealing with the Company, through Schuyler, as Agent. They were dealing with Schuyler as *principal*. Had he assumed to act as *Agent*, he could not have sold the first share, as it would have at once been known that he acted without authority. What he was offering was simply *stolen* property. Now we apprehend that a storekeeper, or watchman, without any other authority than the mere *guardianship*, cannot acquire by *theft*, and convey a competent title to the property under his charge. Possession may be evidence of title, but, as is well known, is only *prima facie* evidence, and may be rebutted by shewing it to be wrongful; so that the purchaser may, and often does, buy in good faith of the man having the *apparent* title, without acquiring one. The old maxim of *caveat emptor*, has as wide and general application as the one quoted at the commencement of this article.

For the Principal to be bound by his Agent, the act of the latter must be strictly within the scope of his usual and acknowledged office, or duty; and the contracting party must suppose himself to be dealing with the principal, *through* the Agent.—Now, Mr. Schuyler had not, nor did he assume to have authority to issue Stock on behalf of the Company, nor did the purchasers of his issues suppose that he had, or that they were dealing with the Company. If he *stole* the Stock, they have acquired no better title than would a purchaser of a horse that had been stolen.

It appears to us that the holders of the fraudulent issue have not only no remedy, save against Schuyler, but that the largest holders of it took it under circumstances well calculated to awaken suspicion and put them on their guard. The mere fact of a man in Mr. Schuyler's position, with enormous contracts on hand, and pressed for money, as he was known to be, hawking about the street single certificates of Stock, to the amount of $500,000, or one-sixth of the whole authorized Capital of the Company, was in itself sufficient evidence of fraudulent possession, and the parties who took such certificates under such circumstances, are not entitled to look to any one but Schuyler Their losses are to be regretted, but if there is to be a loss, we conceive it more just that it should fall upon those who received the Stock from Mr. Schuyler, than upon parties who had no fact before them by which it could be inferred, that a fraud had been committed.

Since the above was written, we find on reference to the Annual Report of this Company, made to the last Legislature, and sworn to by Mr. Schuyler, that the authorized Capital Stock is limited to $8,000,000, and *that the whole amount has been issued*, previous to his frauds. This fact of course releases the Company from all liability on account of Stock issues. If they are assumed, it will be by a *voluntary* act of the Company.

Physical Geography of the State of New York.

By Zerah Colburn.

GENERAL FEATURES.

Every successful effort of the engineer is based upon physical science. In proportion to his knowledge of this basis must be the success of his efforts. In carrying great lines of improvements over the surface of states, perhaps of continents, the natural features met in his course are subjects demanding his study.

Economical Geography, based upon the topography and Physical character of the earth, is one of the most useful departments of physical science, and is of especial importance to engineers. It is a branch of science, however, which has never been popularized, and when learned from necessity, demands extended surveys and reconnoisances or the part of *each* learner. Were it reduced to an elementary study, and taught, with proper illustrations, in our common shools, it would drive out the whole farce of "Geography," as commonly taught. It would educate the popular mind upon a most essential subject, and it would reduce the hazard of outlays made for improvements on the surface of the soil. It would attract numbers and wealth directly to those spots best suited for any given employment, and it would thereby destroy many hurtful *local* prejudices.

Such a science would embrace the extent and disposition of the natural surface, its elevations and depressions, its water drainage, hydraulic power and natural moisture; its seasons, its crops and minerals; its adaptation for improvements, and especially for commercial channels; as well as many minor conditions naturally embraced in such a consideration. Upon the natural conditions of the Earth we might thus establish a science of *natural* and *economical geography*, as opposed to the *artificial and political system* now taught.

A minute knowledge of economical geography would be a good test of the value of proposed improvements. It would indicate to the engineer the proper route for a railroad or canal, and would be a basis of correct opinion, on the part of the merchant or capitalist, as to its success when built. An ignorance of the conditions of a good *route*, and of the amount of accommodation necessary for a given business, has worked great losses in many cases to communities who have undertaken the construction of railroads and canals. The States of Pensylvania and Maryland are cases in point in the sacrifices they have made upon their respective water lines.

For convenience of description, and which, with a map, cannot be misunderstood, the state of New York may be said to form a great triangle, nearly equilateral, and of an average length of 325 miles to the side. One of the angles of this figure lies upon the best ocean harbor in America, while from the tide water, reaching inland, to the great lake basin, a less distance is interposed than in any other part of the United States.

Did the political boundary of New York coincide with what should be the natural outlines of a great and independent State, *and such is very nearly the case*, we should infer that each of the three sides of this triangle would lie mostly upon water lines, and that *three* ridges of natural elevation would unite in the centre, with their extremities reaching out to the angles. Such a formation would establish a symmetry of surface.

The character of such elevations, and the inclinations of their several slopes, would of course be modified by the elevations and directions of the marginal water lines.

We find on the eastern side of the triangle a navigable water line for 190 miles, parallel and near to the political boundary of the State. Continuing northward, a navigable lake with a northern outlet, completes with little interruption, the *great eastern water line*. On the north west, the waters of the great lakes and of the St. Lawrence complete an uninterrupted and natural boundary.—On the south and south western sides of the triangle, the waters of the Delaware, Susquehanna, Chemung, and Cauisteo either coincide with or lie near to the political boundary. It is only upon this boundary that any considerable natural difficulties exist to our easy communication with the city of New York, which is at the *marine* angle of our assumed figure. The interposition of the table land of the Mississippi, at the western extremity of the State, and of the Alleghany range *across* instead of *parallel* to what would otherwise be the natural drainage of the south eastern part of the State, serve to break the continuity of the southern water border.

With this reference to the external *cynclinal* or lowest boundary lines, we commence upon the elevations. The *anticlinal* or summit lines of the interior proceed with considerable regularity from the northern and southern angles to the centre of the State. Those proceeding from those extremes are the most strongly marked by their elevations. Instead of uniting, these ridges are separated at the centre of the State by a great natural depression, of which we shall speak hereafter. The western spur is less strongly marked by elevation or continuity; and after skirting the head waters of the interior lakes it subsides into the high table lands which are drained by the tributaries of the Mississippi.

These three spurs, radiating from the centre of the State, are properly the independent mountain system of New York, and are unconnected with the great Alleghany range of the country. This range, however, extends across the southern part of the State, having the same general range which marks it in Pennsylvania and Virginia. In the course of this range in New York it turns the Delaware river into Pennsylvania, and thereby intercepts a drainage which, but for this physical formation, might have reached tide-water at *Tappan Sea* on the Hudson. It also turns the flank of the Catskill mountains, distorting their course by its own, and creating a drainage nearly opposite in direction to that of the Hudson river.

The Hudson river, however, completely penetrates this range, and affords a navigation to the table land beyond,—a communication which is *nowhere* else found from the Gulf of St. Lawrence to the alluvial approaches of the Mexican Gulf. The St. John's, Penobscot, Kennebec, Androscoggin, Merrimac, Connecticut, Delaware, Susquehanna, Potomac, James, Ronaoke, Peedee, Santee, Savannah, Altamaha, Chattahoochee and Alabama rivers nowhere afford a navigable pass *through* the Alleghany range, but have their sources upon its summits or eastern slopes. The Hudson is the

only river which, passing entirely through, has its sources upon an independent elevation beyond.—When it is considered how commerce follows "tide-levels," the *value* of the pass at the "Highlands of the Hudson" may be inferred.

East of the Hudson, the Alleghanies or "Highlands" shoot immediately up to a higher elevation than for several miles on the west side, and pass into Connecticut, extending thence through Vermont and New Hampshire into Canada.

The Mississippi table land of Western New York is another extensive as well as independent division of the interior elevation of the State.—The eastern boundary of this tract is nearly upon the county line between Alleghany and Steuben, while it extends north as far as to the summit drainage of Cattaraugus creek. This table land is generally from 1550 to 2000 feet above the ocean, but it has an irregular surface drained by streams, running, in some cases, in opposite directions. It is at the north eastern extremity of the extended *plateau*, dividing the waters of the Mississippi from those of the St. Lawrence basin. Towards the latter it breaks off abruptly, but to the South it slopes with gentle descent, so that a navigation is had from Olean Point, 2,300 miles to the mouths of the Mississippi, with no interruption except at the Falls of the Ohio at Louisville. This summit-plateau has less and less elevation as it extends westward. The natural summit between the waters of the Alleghany and Genesee rivers, near the village of Friendship in Alleghany County, N. Y., as found by Charles Ellet, jr., is 1,678 feet above the ocean level. Olean Point, on the Alleghany, as found by the same engineer, is 1,403 feet, and Chautauque lake, further west, 1,306 feet above tide. The natural summit between Conneaut lake and the harbor of Erie, Pa., is elevated 1,095 feet. That in Ohio, between the waters of the Muskingum, running to the south, and the Cuyahoga to the north, is 990 feet, the summit of the Ohio canal at Akron being 973 feet. Between the waters of the Sandusky and Scioto the natural summit is 923 feet; between those of the Maumee and Wabash 745 feet; while the natural summit between the Illinois river and Lake Michigan is 610 feet, or only 32 feet higher than the surface of the lake itself. At one point between the two waters last named, a depression occurs, reducing the summit to only 8 feet above the lake, and at which, with a level cut of less than one mile, the waters of Lake Michigan would flow into the Mississippi.

The *variety* of the surface of our State invests its physical geography with more interest than attaches to any other part of the country east of the Mississippi. The strong *contrasts* of the physical features of the State, the disposition of the surface, and its relation to the geographical structure of the great valley and basin of the great lakes, incontestibly prove that New York must forever be the principal commercial highway between the west and the seaboard.

Before dealing in dry figures and statistics of topography, it is proper to allude to the effects of elevation upon the capacity and economy of commercial routes.

The absolute rise and fall or undulation of a railroad governs the cost of transportation more strongly than the *rate of its gradients.* So with a canal. In the transportation of freight by railroad, every fifty feet of rise or fall, equally distributed or nearly so in each direction, is equivalent by its expenses to the cost of working one mile of additional level. The Philadelphia and Pittsburgh line has about 5,600 feet of undulation, equal to over 110 miles of level. The Boston and Albany line has over 4,000 feet rise and fall, equal to 80 miles of distance.

The Erie canal has but 620 feet rise and fall, equal to only 12½ miles of increased length in a route of 500 miles.

For heavy and bulky freights canal transportation is cheaper than by railroad, both channels having equal rise and fall, and both working to their full capacity. No practicable route exists, however, for a continuous canal between tide water and the lake basin except through the State of New York. The same remark is true in regard to any canal between the Atlantic coast and the Mississippi.

Where every other route of improvement culminates to a *summit* between the great valley or the lake basin and tide water, that of New York finds its summit at the lake itself.

In economical geography, therefore, the lines of lowest depression, or synclinal axes, are of the greatest interest. With such lines our State is intersected in directions the best adapted to the movements of commerce. In the number, length and continuity of such lines, New York has no rival in any seaboard State east of the Mississippi. Let us compare our own with the principal western routes of other seaboard cities.

New York reaches her commercial depot on Lake Erie with no greater ascent and no greater expenditure of power than that by which Boston gains the summit of the Worcester road, within 40 miles of her own harbor. Philadelphia encounters a summit higher than the surface of Lake Erie, within 50 miles of the Delaware river. Baltimore encounters a much greater elevation within 50 miles. Georgetown, with its Chesapeake and Ohio canal, following the Potomac, ascends to the level of Lake Erie at *Cumberland*, at the *foot* of the great Alleghany slopes. The cities south of Richmond reach their western trade over much higher elevations than exist upon the New York line. The Richmond lines ascend 3,000 feet.

These facts and considerations impart a greater interest to the topography of our commercial routes. We may now examine their elevations.

THE EASTERN WATER LINE.

This water line is level with the ocean for 160 miles. For the next 50 miles, the canal summit between the Hudson and Lake Champlain is but 134 feet above tide, or lower than the dome of the Merchants Exchange in New York city. The descent to Lake Champlain is but 54 feet, the level of the lake being 80 feet above tide, and having a navigable outlet on the north. The eastern water line is therefore a virtual connection of the St. Lawrence with the ocean.

THE NORTH WESTERN WATER LINE.

The North Western Water line is formed by lakes Erie and Ontario, and Niagara and St. Lawrence rivers. The elevation of lake Erie is 565 feet above tide, of lake Ontario 232 feet. Niagara river descends 333 feet in 36 miles. The St. Lawrence descends more than 180 feet between the lake and Montreal, 80 feet of which occur at the Long Sault rapids, opposite Massena in St. Lawrence county. The north western water line is part of the great chain of lakes, covering 90,000 square miles, having a navigation of over 3000 miles in length, and draining more than 330,000 square miles of territory. The navigation of the St. Lawrence is improved for vessels of 130 feet keel, 26 feet beam and 10 feet depth. The descent of the Niagara river is effected by the Welland canal, with 34 locks, on the Canada side, while the Niagara ship canal will yet furnish still better facilities on the American side.

The elevations of this water line may be compared with those of various points in the Ohio valley.

The surface of lake Erie is 134 feet *below* low water at Pittsburg, Pa.; *level* with the Ohio at a point 10 miles below Marietta, 133 feet *above* low water at Cincinnati, and 290 feet above the mouth of the Ohio at Cario. It is 408 feet below the summit of the Ohio canal at Akron; 211 feet below Columbus, O., 21 feet below the lowest summit between the Illinois river and lake Michigan and 62 feet below lake Superior.

On the east, the surface of lake Erie is 1195 feet below the highest summit of the Erie road, 1556 feet below the summit of the Pennsylvania road, 2055 feet below the summit of the Baltimore and Ohio road, 2189 feet below the summit of the Alleghanies at the crossing of the surveyed line of the Chesapeake and Ohio canal, and 1333 feet below the level surveyed for the tunnel of that work through the Alleghanies. But upon the line of the Erie canal, the lake is itself the summit.

The surface of lake Ontario is far below the top of Trinity spire in New York city, but at the same time is 125 feet *above* the surface of the Ottawa river, with which it is connected by the Rideau canal. The great lakes lie upon an elevated interior table land, sloping away on all sides except against the Alleghanies.

THE SOUTHERN WATER LINE.

The last marginal water line of the state is the Southern and South western, that followed by the line of the Erie road. Its elevations, where it approaches or coincides with the political boundary may be estimated from those of the Erie railroad track where located upon the immediate banks of the streams. These elevations are as follows:

	Delaware Valley.	From N. Y.
Delaware Station	436 feet.	88 miles.
Deposit	997 "	177 "
	Susquehanna Valley.	
Susquehanna Depot	907 feet.	192 "
Owego	814 "	236½ "
Elmira	854 "	273 "
Corning	921 "	291 "
Hornellsville	1139 "	331½ "

Between the Delaware valley and tide water at Piermont, the highest railroad summit is 896 feet above tide, and the total rise and fall 2814 feet. Between the Delaware and Susquehanna vallies, the railroad summit is 1366 feet above tide, and the rise and fall 829 feet. Between the valley of the Canisteo and lake Erie, the highest railroad summit is 1760 feet above tide, and the rise and fall 3123 feet. The rise in the Delaware valley is 560 feet, and the rise and fall in the Susquehanna valley 730 feet, making a total rise and fall, between the Hudson river and lake Erie, of 8056 feet.

INTERIOR DEPRESSIONS.

Of these, the Mohawk valley is one of the most

peculiar and important, peculiar because it breaks the mountains near the center of the state, where, from the external water lines, we should expect to find the highest summits; and important because it is the great natural channel between the west and seaboard. The highest elevation of the Erie canal, within the Mohawk valley is 425 feet above tide, while on the south, mountains rise to 3804 feet, and on the north, to 5467 feet above the ocean. The Mohawk therefore has the same relation to the independent mountain system of New York that the Hudson has to the Alleghanies, it penetrates entirely through. As the vallies of the Mohawk and Hudson are united a route is formed, the most perfect that can exist.

The summit between the Mohawk and Oswego is upon the same plane as the "long level" of the Erie canal. It corresponds with the *crest* of the Alleghanies on other routes, but is 140 feet *below* the surface of lake Erie. Where the summits of other lines are from one quarter to nearly one half a mile *above* the level of Erie, the church spires of Rome and Utica are lower than the steamboat piers at Buffalo.

The principal descent of the Erie canal is in the Mohawk valley at Little and Cohoes Falls. The lower aqueduct over the Mohawk, just above Cohoes falls, is 185 feet above tide; at Schenectady the canal level is elevated 227 feet; at the mouth of Schoharie creek 291 feet, at the foot of Little Falls locks, 320 feet, ascent at Little Falls 40 feet; elevation of canal at German Flats 385 feet, and at Utica, and thence along the 70 mile level 425 feet. At Syracuse the canal descends 26 feet into the basin of Onondaga lake, and a few miles beyond it rises 17 feet; or to a level of 416 feet above tide. At Montezuma it locks down to its lowest level in the Seneca valley, where it has its lowest depression in the Ontario table land, viz. 380 feet. A rise of 126 feet, of which 24 feet are at Newark, 20 feet at a point west of Palmyra, and 37 feet at Brighton, besides other locks, raises the canal to the Genesee level at Rochester. This level is 506 feet above tide, and is about 65 miles in length. The last elevation of 62 feet at Lockport places the canal upon the level of lake Erie, 568 feet above tide.

Such is the topography of the two great and peculiar depressions in the surface of the state, the vallies of the Hudson and Mohawk, and the table land of lake Ontario. The adaptation and application of these depressions to the purposes of commerce are without parallel in the topography and history of any other seaboard state.

The Erie canal crosses two lateral depressions of interesting topography. The first is that of the outlet of the interior lakes. We have seen that the lowest depression of the Erie canal in the Seneca valley is 380 feet above tide. Cayuga lake is elevated 407 feet and Seneca lake 447 feet, giving a descent of the latter of 47 feet at Seneca Falls. Crooked lake is 718 feet above tide, giving 271 feet fall into Seneca outlet, and creating a water power in the neighborhood of Penn Yan. Canandaigua lake is 668 feet above tide. Most of the interior lakes have inlets, flowing from steep hills, giving often 400 or 500 feet fall in a distance of a few miles. Catharines creek, the inlet of Seneca lakes, descends 400 feet in 15 miles, affording a large water power in the neighborhood of Jefferson. Fall, Cascadilla and Six Mile creeks also afford great water power at Ithaca, near their entrance into Cayuga lake.

North of the Erie canal, the Seneca river receives the overflow of Oneida lake, and under the name of Oswego river, descends 148 feet to lake Ontario. One hundred feet of this fall are within a distance of 24 miles, creating a vast and unfailing water power, drained from 7000 square miles of territory.

The Genesee Valley is the second great depression crossed by the Erie canal line. In approaching the Genesee from the east the canal ascends a sort of *levee*, the rise at Brighton, near Rochester, being 37 feet. It is possible that the Genesee formerly entered Lake Ontario at Gerundegut Bay some miles east of Port Genesee.

North of Rochester the river descends 250 feet through the several "Falls of the Genesee." South of Rochester, the Genesee Valley Canal rises 95 feet in reaching Mt. Morris. From thence to the summit above Portage, the ascent is 945 feet, or 1546 feet above tide. It is also 978 feet above lake Erie. This canal has the highest summit of any in New York, but as the work will unite the waters of the lakes with those of the Mississippi, it deserves comparison with some other works built for the same purpose in the Western states.

The Ohio canal summit is 973 feet above tide, and 499 feet above the Ohio river at Portsmouth. That of the Miami canal is 606 feet above tide, and 174 feet above low water at Cincinnati. The summit of the Illinois and Michigan canal is 586 feet above tide, and 8 feet above lake Michigan.

The character of the upper valley of the Genesee may be inferred from the fact that the great bridge of the Buffalo and New York city railroad crosses it at Portage, 234 feet above the water, with a length of less than 900 feet. About 100 feet below this bridge the river falls 60 feet. The head waters of the Genesee are on the table land of Western New York, already described.

Some of the other depressions of our state, suitable for business routes, are the Tioughnioga and Chenango vallies; the depression between the Shawangunk and Cattskill mountains, forming the vallies of the Neversink and Rondout; the northern slope of the Clinton range, and in the vallies of nearly all of the principal rivers in northern New York.

The summit of the surveyed line of the Syracuse and Binghamton railroad, in the town of Tully, 18½ miles from Syracuse, is about 1200 feet above tide, being about 800 feet above the divergence of the Oswego and Syracuse track at Syracuse. South of Syracuse, the Binghamton road will ascend this summit by grades of 53 feet per mile. In the vallies of the Tioughnioga and Chenango the line will have a gentle descent to Binghamton.

The summit of the Chenango canal is 1131 feet above tide, being 706 feet above Utica and 303 feet above Binghamton.

The summit of the Delaware and Hudson canal in Sullivan county is 535 feet above tide.

The summit of the Northern, New York, railroad, near Chateaugay, Franklin county, is 1154½ feet above tide, the track at Ogdensburg being 238½ and at Rouses Point 88 feet above tide. The whole rise and fall of the Northern road is 2580 feet.

There are depressions in the mountain system of Hamilton, Herkimer, Franklin, and Essex counties, which are available for lines of improvement. From near the centre of an extended plateau, occupying the northern part of Herkimer and Hamilton counties, four natural valleys diverge, nearly at right angles with each other.—These are the valleys of the Hudson on the south east; of Long lake, Fulton lakes, and Moose river on the south west; the Racket on the north west, and the Saranac on the north east. The general elevation of the lakes and streams, in the district from whence they flow in opposite directions, is from 1,500 to 1,600 feet, and the summits of any lines run from Troy to Ogdensburg, or from Rome to Plattsburg, would probably reach 2,000 feet above tide. One of the surveyed summits of the Saratoga and Sackets harbor railroad at Arietta is 2,465 feet. In the report of the engineer of the work just named, the following elevations are given:

	Feet
Hudson river at mouth of Sacondaga	536
" " Schroon	594
" " Boreas	1,134
" " Cedar	1,454
Junction of Rock and Cedar rivers	1,531
Long Lake - - - - - -	1,617
Racket Lake - - - - - -	1,745
Eighth lake of Fulton chain - -	1,776
Second do. - - - - - -	1,684
Outlet of Fulton chain in Moose -	1,672
Moose river at Turin Forks - - -	1,487
Upper Saranac lake - - - -	1,567
Sanford lake - - - - - -	1,712
Tupper's lake - - - - -	1,500

This plateau, compared with the mountains rising from its eastern side, has a marked depression. The *mass* of mountains rising on the north west of Essex county is of greater height than the White mountains of New Hampshire, although Mount Marcy, the principal summit of the former, is 767 feet lower than Mt. Washington.

Mount Marcy is 5,467 feet above tide, while around it are a large number of mountains of above 5,000 feet high. As an elevated mass the Adirondack mountains are unsurpassed east of the Mississippi, except in the region of Black, Roan, and Grandfather mountains in North Carolina.

The highest elevation of the Highland range, on the east side of the Hudson, is 1,685 feet; of the Shawanguuk mountains 1,866 feet, and of the Catskills 3,804 feet.

EASTERN SLOPE OF THE HUDSON AND CHAMPLAIN YALLIES.

This slope is of less interesting character than pertains to other parts of the State. The summit of this slope, although in part that of the Taghconic range, is, in chief, that of the Hoosic or Green mountain ranges beyond. In the Champlain valley the Green mountains form the eastern slope. The elevations of the highest summits of these ranges are popular geographical facts, but the lowest occupied passes are less generally known.

The summit of the Western Railroad in Washington, Mass., is 1,450 feet above tide, and the elevation of the track at the State line 911 feet. In the *tunnel*, through the summit which sepa-

rates the valleys of the Housatonic and Hudson, the track is elevated 950 feet. The Troy and Greenfield road will be able by the excavation of the Hoosic tunnel (4 1-2 miles in length,) to pass the summit between the Connecticut and Hudson at about 860 feet.

In Vermont, the Mount Holly summit of the Rutland and Burlington railroad is 1,420 feet above tide, and 1,340 feet above Lake Champlain. West of this summit the valley of the Otter creek gives a line of easy descent to the lake. The Vermont Central Railroad has its principal summit in the *back* or *second* range of the Green mountains, 56 1-4 miles from Lake Champlain, and 913 feet above its surface, or 993 feet above tide.—From the eastern, *through* the western range of mountains to the lake, the Onion River valley has a continuous descent. By the side of the railroad track it is nowhere 500 feet above the lake, although the highest summits in Vermont, from 4,000 to 4,280 feet, are close on each side.

The Lamoille and Missisqui are the only other streams breaking through the Champlain range of the Green mountains.

The summit of the Harlem road, in the north east part of Dutchess county, N. Y., is 769 feet above tide.

Such is a somewhat minute sketch of the prominent physical features of New York. To describe all would require a volume. Enough has been shown to prove that no state has a greater variety of surface, and that none is better adapted for the operation and support of commercial routes. Our incomplete view has not included the hydraulic power of the State, excelled in no other part of the globe; the great number and capacity of our interior lakes, which form one of the most remarkable features in the natural distribution of water; the great and productive table lands and vallies of rich calcarious and argillaceous soil; the quarries, minerals, and other natural elements of wealth abounding in our midst. All of these are better known than the topographical material we have exhibited, and at the same time would demand a quarto for their description.

Grand Rapids and Indiana Railroad Company.

The following are the officers and directors of this newly organized Company:—Joseph Lomax, President; Wm. H. Campbell, Secretary; Sylvester R. Shelton, Treasurer; Josiah D. Cook, Chief Engineer; Geo. Walker, Resident Engineer.

Josiah D. Cook, Joseph Lomax, of Marion, Indiana; Joseph G. Van Horn, of Grant Co.; Ambroze W. Henley, Andrew J. Neff, Amos M. Hackney, Lewis Baily, J. E. B. Rose, Abraham Stahl-N. D. Clouser, George S. Howell, Sylvester R. Shelton, and William Henley, of Hartford City, Directors.

This Company was organized Jan. 18, '54, with a subscription of 2200 shares at $25 each. We have spoken of it previously under the name of Indiana, Kalamazoo and Grand Rapids Railroad Company. Though the name at the head of this article is the name under which the Company was chartered; the office of the Company is at Hartford city, Blackford county, Indiana.

Bridging the St. Lawrence.

The construction of the tubular iron bridge across the St. Lawrence opposite Montreal has commenced. One of the immense coffer-dams, made of timber, in which the piers are to be built, has been launched and towed to its place, and others are in progress. Some 1500 men will, it is said, be employed on the bridge the coming summer.

New Orleans and Ohio Railroad

At a recent election for Directors of this road, held in Paducah, the following individuals were elected:

Wm. Smedley, E. L. Anderson, L. M. Flourney G. H. Morrow, Henry Enders, S. M. Purcell, R. S. Ratcliffe, W. Thompson, L. S. Trimble, Rodney Case.

After the election had been held, the new Board met, and proceeded to the election of President, and L. S. Trimble was re-elected without opposition.

Peoria and Oquawka Railroad.

The annual meeting of the stockholders of this road was held at Knoxville. The following gentlemen were elected directors for the ensung year.

Fitz Henry Warren, of Burlington;
W. S. Phelps, of Elmwood;
G. C. Bestor, R. Rouse, P. Sweat, W. Kellogg, J. Frink, of Peoria;
A. H. Danforth, of Washington;
J. Thomas, of Middleport.

Buffalo and State Line Railroad.

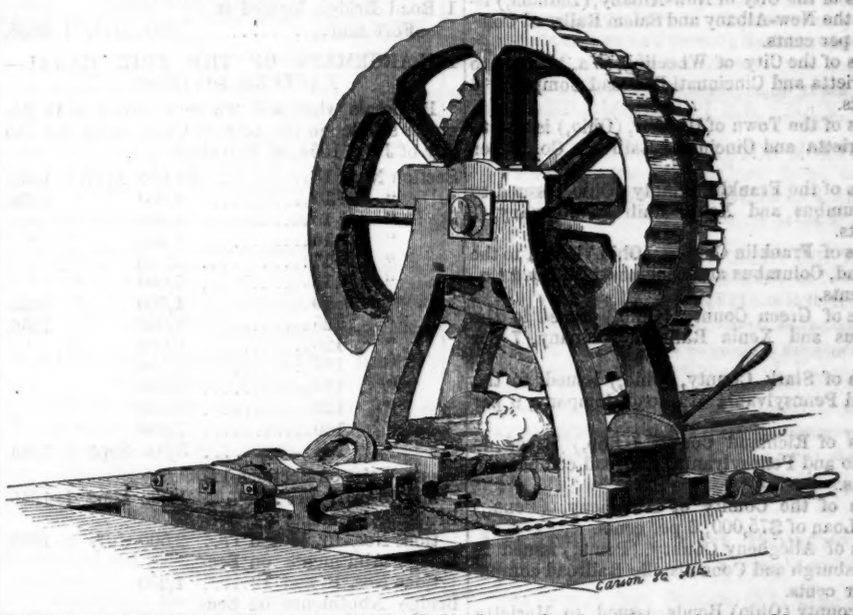
The following gentlemen were, on the 27th inst. elected Directors of this Board for the ensuing year: Alanson Robinson, George Palmer, Dean Richmond, William Williams, Charles H. Lee, Henry L. Lansing, Buffalo; Geo. W. Patterson, Westfield, Chatauque county; James S. Wadsworth, Geneseo, Livingston county; Joseph Field and Asa Sprague, Rochester: Horace White and John Wilkeson, Syracuse, Onondaga county. Homer Ramsdell, Newburgh, Orange county.

At a meeting of the Directors, George Palmer was re-elected President, and Dean Richmond Vice President.

Southwestern Georgia Railroad.

At a recent meeting of the Board of Directors of the Southwestern Railroad Company, petitions from Albany, Eufala, and Fort Gaines, were presented, asking an extension of the road to these several points. The Board decided to defer considering the question of extension until the 12th October next, when they will meet at Americus, and at which time the people of Southwestern Georgia are invited to meet them.

Winslow's Puddlers' Ball Squeezer.



THE Subscriber's Puddlers' Ball Squeezer, or Shingling Machine, has now been in use for several years, and in every instance has given unqualified satisfaction, as is attested by many Iron manufacturers who use it in different parts of the country and in England. Its advantages are, great expedition in performing its work, freedom from breakages, *no wastage of Iron* while being compressed, the action of the hammer upon the ends of the ball or bloom to upset it while being reduced in its diameter; and the very small amount of power required to work it, coupled as it usually is to the end of the ball rollers or forge train. Rights to use these machines can be had by addressing the Patentee, who will likewise cheerfully submit the many testimonials in his possession of its efficiency, from some of the first men in the country.

J. F. WINSLOW, *Troy, N. Y.*

Persons residing west of the Alleghanies can be furnished with information in relation to the foregoing, by addressing

28tf A. S. WINSLOW, Cincinnati, O.

Phœnix Iron.

THE subscribers having made extensive additions to their Works at Phœnixville, are now prepared to receive and execute promptly, orders for BAR IRON, of their own manufacture, waranted equal to the best English refined, for quality and finish.

They also continue, as usual, to furnish T and U Rails, of any required pattern and weight; or from any of the following patterns, for which they have the rolls on hand, viz: weighing per lineal yaad—20lb, 28lb, 40lb, 50lb, 55lb, 56lb, 57lb, 59lb, 60lb, 61lb and 64lb, of the T patterns.

48lb, 59lb and 75lb of the U patterns.

75lb Groove Rail for streets.

Also, a superior article of Wrought Iron Rolled Chairs, with continuous lips, 7½ inches wide by any length required, weighing 1¾lb per lineal inch, made to fit exactly the flanges of Rails, and ensuring a most perfect joint.

Also, Rolled Car Axles, of superior quality, cut to length.

Dealers and Railroad Companies desirous of contracting, will please address.

REEVES, BUCK & Co.,

28.6m No. 45 North Water Street, Philadelphia.

Railroad Iron.

THE "Montour Iron Company" is prepared to execute orders for Rails of the usual patterns and weights, and of any required length not exceeding 30 feet per rail.

Apply to THOS. CHAMBERS,

September, 1850. President.

Engine Driver.

WANTED—A Situation by a Man of Great Experience in Engine Driving in England—Can prodnce first rate Testimonials—address, post paid, Box 1833, N.Y. Postoffice. 26tf

Welded Wrought Iron Tubes.

THE subscribers having lately added to their Cumberland Nail and Iron Works an establishment for making Wrought Iron Tubes, are now prepared to supply the trade with tubes two to twelve feet in length, furnished with screws and ferrules on their ends, of the following sizes—inside diameter,

⅛, ¼, ⅜, ½, ¾, 1, 1¼, 1½ and 2 inches.

Warranted and fully proved, equal to the best Pipes manufactured.

All orders addressed to us will receive prompt attention, and liberal discounts from the list of prices will be allowed to the trade.

REEVES, BUCK & Co.,

No. 45 North Water Street, Philadelphia.

July 13, 1854. 28 6m.

To Civil Engineers and Surveyors.

TRANSITS, Level and Surveyors Compasses Manufactured on the most improved principle and of the Best Quality by THOMAS HUNT,

No. 63 Fulton Street,

1y10* New York.

DIVIDEND NOTICE.—THE SEMI-ANNUAL Interest, falling due in this city on the First Day of July, on the following named Securities, will be paid on and after that day at the office of the undersigned on presentation of the proper Coupons, viz.:

Bonds of the State of Indiana, for Banking purposes, issued in 1834, being the $1,300,000 loan 5 per cent.

Bonds of the City of Pittsburgh, (Penn.,) issued to the Ohio and Pennsylvania Railroad Company, 6 per cents.

Bonds of the City of Pittsburgh, (Penn.,) issued to the Pittsburgh and Connellsville Railroad Company, 6 per cents.

Bonds of the City of Allegheny (Penn.,) issued to the Ohio and Pennsylvania Railroad Company, 6 per cents.

Bonds of the City of Chillicothe, (Ohio,) issued to the Marietta and Cincinnati Railroad Company, 7 per cents.

Bonds of the City of Marietta, (Ohio,) issued to the Marietta and Cincinnati Railroad Company, 7 per cents.

Bonds of the City of Covington, (Kentucky,) issued to the Covington and Lexington Railroad Co., 6 per cents.

Bonds of the City of New-Albany, (Indiana,) issued to the New-Albany and Salem Railroad Company, 7 per cents.

Bonds of the City of Wheeling, (Va.,) issued to the Marietta and Cincinnati Railroad Company, 6 per cents.

Bonds of the Town of Harmer, (Ohio,) issued to the Marietta and Cincinnati Railroad Co., 7 per cents.

Bonds of the Franklin County (Ohio,) issued to the Columbus and Xenia Railroad Company, 7 per cents.

Bonds of Franklin County, (Ohio,) issued to the Cleveland, Columbus and Cincinnati Railroad Co., 7 per cents.

Bonds of Green County, (Ohio,) issued to the Columbus and Xenia Railroad Company, 7 per cents.

Bonds of Stark County, (Ohio,) issued to the Ohio and Pennsylvania Railroad Company, 6 per cents.

Bonds of Richland County, (Ohio,) issued to the Ohio and Pennsylvania Railroad company, 6 per cents.

Bonds of the County of Allegheny, (Penn.,) Special Loan of $75,000, 6 per cents.

Bonds of Allegheny County, (Penn.,) issued to the Pittsburgh and Connellsville Railroad company, 6 per cents.

Ross county (Ohio) Bonds, issued to Marietta and Cincinnati Railroad company, 7 per cents.

Athens county (Ohio) Bonds, issued to the Martt a and Cincinnati Railroad company, 7 per cents.

Washington county (Ohio) Bonds, issued to the Marietta and Cincinnati Railroad company, 7 per cents.

Bonds of Van Wert county, (Ohio,) issued to the Ohio and Indiana Railroad compady, 7 per cents.

Bonds of Allen county, (Ohio,) issued to the Ohio and Indiana Railroad company, 7 per cents.

The Bonds of Allen county (Indiana,) issued to the Ohio and Indiana Railroad company, 7 per cents.

Bonds of Crawford county, (Ohio,) issued to the Ohio and Indiana Railroad company, 7 per cents.

Ohio and Pennsylvania Railroad Co.'s Mortgage Bonds, 7 per cents.

Bellefontaine and Indiana Railroad company's Real Estate Special Mortgage Bonds, 7 per cents.

Indianapolis and Bellefontaine Railroad company's Mortgage Bonds, 7 per cents.

Marietta and Cincinatti Railroad company's Mortgage Bonds, 7 per cents.

Dayton and Michigan Railroad company's mortgage bonds, 7 per cents.

Peru and Indianapolis Railroad company's mortgage bonds, 7 per cents.

Fort Wayne and Chicago Railroad company's mortgage bonds, 7 per cents.

Indiana Central Railroad company's Income Bonds, 10 per cents.

WINSLOW, LANIER & Co., No. 52, Wall-st.

New Yoak, June 26, 1854.

To Contractors.

NEW YORK STATE CANALS.—NOTICE TO CONTRACTORS. In pursuance of a resolution of the Contracting Board, notice is hereby given, that seaeld proposals will be received by the undersigned for the construction and completion of the work upon the several Canals of this State, described in the following tabular statement at the times and places therein mentioned:—

CHAMPLAIN CANAL.

Proposals when and where received:—At the Canal Commissioner's Office in the City of Albany until the 6th day of July, 1854, at 10 o'clock A. M.

Description of the work.	Amount penalty in bond.	When to be completed.
2 Combined Locks	$10,000	Sept. 1. 1855.
1 Single Lock	6,000	" "
1 Road Bridge, located at Fort Ann	500	July 1, 1855.

ENLARGEMENT OF THE ERIE CANAL—EASTERN DIVISION.

Proposals when and where received:—At Engineer's Office in the City of Utica until the 8th day of July, 1854, at 10 o'clock A. M.

Section No. 13	$1,000	April 1,	1855.
" 14	2,000	"	1856.
" 15	6,000	"	"
" 16	7,500	"	"
" 17	4,000	"	"
" 18	5,000	"	"
" 19	1,500	"	1855.
" 125	7,000	"	1856.
" 126	6,000	"	"
" 137	7,500	"	"
" 128	6,000	"	"
" 129	7,500	"	"
" 130	7,000	"	"
" 134	5,500	Sept. 1,	1855.
Waste Weirs on Sections 127 and 134	1,600	Sept. 1,	1855.
Bridge Abutments on Sections Nos. 15, 16 and 17	2,500	July 1,	1855.
Bridge Abutments on Sections Nos. 18 and 19	1,200	"	"
Bridge Abutments on Sections Nos. 125, 126, 127, and 128	1,200	"	"
Bridge Abutments on Sections Nos. 129, 130, 134 and at New London	1,400	"	"
Culverts on Sections Nos. 16 and 17	700	"	"
Culverts on Sections Nos. 126 to 128	2,600	"	"
Culverts on Sections Nos. 129, 130 and 134	1,250	"	"

BLACK RIVER CANAL.

Proposals when and where received:—At Engineer's Office at Lyon's Falls until the 12th day of July, 1854, at 10 o'clock A. M,

Section No. 30	$2,000	July 1,	1855.
" 31	6,000	"	"
Locks Nos. 99, 100 and 101	4,000	"	"
" 102	2,500	"	"
" 103 104 and 105	800	"	"
" 106 and 107	500	"	"
Bridges on Sections No. 31	300	May 1,	1855
Raising Bridges across Black and Moose Rivers	300	Oct. 1,	1854.

ENLARGEMENT OF ERIE CANAL—MIDDLE DIVISION.

Proposals when and where received:—At the Engineer's office in the city of Syracuse, until the 15th day of July, at 10 o'clock, A. M.

Section No. 146	$5,900	April 1,	1856.
" 147	5,400	"	"
" 148	6,100	"	"
" 149	4,600	"	"
" 150	15,800	"	"
" 151	9,600	"	"
Aqueduct at Chittenango	4,400	"	"
" Seneca River and Section 202 connected	21,700	Nov. 1,	1855.
Culverts on Sec. 146, 147, 148 and 149	1,700	April 1,	1856.
Culverts on Sec. 150 and 151	2.200	"	"
Culverts on Sec. 200 and 201	900	"	1855.
Bridge Abutments on Sections 146, 147 and 148	1,800	"	1856.
Bridge Abutments on 150 and 151	1,000	"	"
Bridge Abntments on 201	900	"	1855.

ENLARGEMENT OF ERIE—WFSTERN DIVISION.

Proposals when and where received:—At the Engineer's office in the city of Rochester, on Tuesday, the 18th day of July next, at 10 o'clock, A. M.

Section No. 212	$3,500	April 1,	1856.
" 213	3,800	"	"
" 214	5,100	"	"
" 215	5,000	"	"
" 216	3,700	"	"
" 217	11,000	"	"
" 218	14,000	"	"
" 228	5,700	"	"
" 229	5,300	"	"

GENESEE VALLEY CANAL.

Proposals when and where received:—At the Engineer's office in the village of Cuba, on Thursday, the 20th day of July next, at 2 o'clock P. M.

Sections Nos. 82, 83 and 84	$2,500	Aug. 1,	1855.
" 91 and Feeder.	4,000	"	"
" 95 and 96	3,200	"	"
" 97	3,000	"	"
" 98 and Feeder.	3,400	"	"
Ischua Feeder	6,500	"	"
Ischua Aqueduct	1,000	"	"
Culvert on Section No. 65	100	April 1,	1855.
Valve Gates	1,500	Aug. 1,	1855.
Lock Houses	700	"	"

All propositions must be for a sum certain, as to the price to be paid or received, for each and every kind of work; and no proposition not thus defined will be received or acted upon.

Every proposal shall be accompanied by an affidavit, endorsed thereon, of each person uniting in such proposal, that he is not directly or indirectly interested in any other proposal for the same work or materials, or any part of the same; that he has no agreement or understanding with any other person to become interested in any other proposal or contract for the same work or materials, or any part thereof; and that no other person than such as shall be named in the proposal is interested in the same, or has any agreement or understanding to become interested in any contract that may be made in pursuance of such proposal.

Every proposal for work or materials embraced in the above statements shall be accompanied with a bond to the people of this State, in the penalty specified opposite each kind of work in said statement, and which bond shall be signed by the party making such proposal and two or more responsible sureties, with such evidence of their responsibility as the contracting board shall require, and which sureties shall justifiy in sums equal in the aggregate to twice the amount of such penalty.

Each proposal must be accompanied by the certificate of the Supervisior of the town, and the Country Clerk, or the County Judge of the county in which said surety shall reside, or any two of them, as to the responsibility of said sureties.

The persons to whom the work may be awarded will be required by the contracting board to give the bond for the payment of laborer's wages, as required by chapter 278, of the laws of 1850.

No acceptance of a proposal or award of a con-

tract by the contracting board, and no contract made by the said board, or any interest in the same, shall be assignable to any person or persons, without the written consent of the Canal Commissioners.

Fifteen per cent of the amount of any work done or materials furnished, at the contract price thereof, shall be reserved by the canal commissioner until the whole work, which is the subject of the contract, shall be fully and entirely completed.

In case the contracting board shall be of opinion that the proposals made at any meeting thereof pursuant to any advertisement, are, in consequence of any combination or otherwise, excessive and disadvantageous to the State, they may decline all the said proposals, and advertise anew for the work and materials embraced therein.

Contractors will be required to receive and use in the work all such materials as have been previously procured and delivered for any of the above work, and allow such prices therefor as may be exhibited at the several offices prior to the letting.

The prices in the contract will be considered as including the expense of furnishing all the materials, and performing all the work, according to the plans, specifications and notices exhibited at the letting.

The persons to whom the work may be awarded, will be required to enter into contract for the performance of the work within ten days after the same shall have been awarded to him, upon the terms prescribed by the contracting board.

The name or names of the persons proposing, must be written out in full, with their places of residence.

The maps, plans, specifications, quantities of materials, propositions, blank contracts and bonds will be ready for examination at the several places specified in this notice, ten days previous to the times specified for the several lettings.

Dated at ALBANY, June 9, 1854.

HENRY FITZHUGH,
FREDERICK FOLLETT,
CORNELIUS GARDINIER, } Canal Comm'rs.
JAMES M. COOK. Comptroller.
JOHN T. CLARK, State Eng. and Surveyor.

To Railroad Companies and Contractors.

FOR SALE—Fifteen second hand Locomotive Engines of various sizes and describtions and in good runing order suitable for all kinds of work. For particulars apply to

CLARK & JESUP,
General Railroad Agents,
38 Exchange Place.

Also Railroad supplies of all kinds, 4t25

Prosser's Patent Lap-Welded Iron Boiler Tubes.

Tubes screwed together, flush on both sides, for Artesian wells, &c. Free-joint Tubes, for Core Bars, Awning Frames, Railings, Leaders, &c.

Patent Wrought Iron Blacksmiths' WATER-TUYERES, WATER-BACKS, Etc.

Agents for KRUPP'S celebrated CAST STEEL for SHAFTS, RAILWAY Axles, Tires, Platters' Rollers, &c.

P. S.—All Tools necessary for the construction or keeping in order of Tubular Boilers

24tf THOS. PROSSER & SON, 28 Plat streett, N. Y.

SHANAHAN & LOEBER,

181 William-st,
(1st floor-Up Stairs,)
NEW-YORK.

MANUFACTURERS OF

THEODOLITES, TRANSITS, LEVELS,
Surveyors' Compasses, Drawing Instruments,
Chains, Scales, Levelling Rods, &c. 1y10

Sewall & Crehore

CIVIL ENGINEERS,
ST. PAUL MINESOTA.

JOSEPH S. SEWALL. CHAS. FRED. CREHORE.

N. York and N. Haven R. R.

NOTICE OF SUMMER ARRANGEMENTS,

Commencing Monday, May 9, 1854.

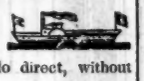
TRAINS FROM NEW YORK.	TRAINS TO NEW YORK.
7 A. M.—Accommodation to New Haven.	5.30 A.M.—Special, from Port Chester.
8 A. M.—Express for Boston, stopping at Stamford and Bridgeport.	5.00 A.M.—Commutation from New Haven.
	6.15 A.M.—Accommodation fm New Haven.
9.10 A.M.—Special for Port Chester.	8.15 A.M.—Accommodation fm New Haven.
11.30 A.M.—Accommodation for New Haven.	9.35 A.M.—Express from New Haven, Stopping at Bridgeport, Norwalk and Stamford.
3·00 P.M.—Express for New Haven, stopping at Stamford, Norwalk and Bridgeport.	1·07 P.M.—Boston Express, stopping at Bridgeport, Norwalk and Stamford.
4.00 P.M.—Accommodation for New Haven.	4.00 P.M.—Special, from Port Chester.
5.00 P.M.—Express for Boston, stopping at N. Haven.	4.00 P.M.—Accommodation fm New Haven.
5.35 P.M.—Commutation for N. Haven.	9.30 P.M.—Boston Express, stopping at Bridgeport, Norwalk and Stamford.
6.30 P.M.—Special for Port Chester.	

GEORGE W. WHISTLER, Jr., Sup't.

New Haven, May, 1854.

New York and Erie R. R.

PASSENGER TRAINS leave Pier foot of Duane street, as follows, viz:—



BUFFALO EXPRESS, at 6 a. m. for Buffalo direct, without change of baggage or cars.

Dunkirk Express, at 7. a. m. for Dunkirk.

MAIL, at 8¼ a. m. for Dunkirk and Buffalo, and intermediate stations.

WAY EXPRESS, at 12¼ p. m. for Dunkirk.

Rockland Passengers, at 3. 30 p. m., (from foot of Chamers Street) via Piermont, for Suffern and intermediate stations.

WAY PASSENGER, at 4 p. m., for Otisville, and intermediate stations.

NIGHT EXPRESS, at 6 p. m. for Dunkirk and Buffalo.

Emigrant at 6 p. m.

On Sundays only one Express Train—at 6 p.m.

These Express Trains connect at Buffalo with first-class splendid Steamers on Lake Erie for all ports on the Lake; and at Dunkirk with the Lake Shore Railroad for Cleveland, Cincinnati, Toledo, Detroit, Chicago, etc.

D. C. McCALLUM, General Sup't.

Railroad Companies and Contractors,

WANTING first rate German or Irish laborers for railroads and canal work, or mechanics of any kind, will find the undersigned a first rate office to give their orders to, as thousands of emigrants apply to them every season for employment.

Satisfactory reference will be given to well known companies and contractors, and men are forwarded to any part of the Union.

MORRIS & COHNERT,
European, American Employment Office,
287 Broadway, corner Reade-st.
3m*10 Under the Irving House, New York.
And 102 Greenwich st.

Steam Engine and Blowing Cylinders for Blast Furnace for Sale.

A STEAM ENGINE, 20 inch cylinder, and five feet stroke, together with Blowing Cylinders, five feet diameter, and six feet stroke, in perfect working order, for sale. Apply to

EDW. BECH & KUNHARDT, 62 Beaver St.,
Or, A. TOWAR, Agent Pokeepsie Iron Works,
23tf Pokeepsie, N. Y.

Notice to Contractors.

PROPOSALS FOR THE ENTIRE CONstruction and equipment, or the graduation, bridging and masonry, separately, either in whole or in part, of the Mississippi and Tennessee Railroad, (extending from Memphis to Grenada, Mississippi, about 97 miles,) will be received at the office of the Company, in Memphis, till the 20th of July next. Proposals for the entire construction and equipment, and otherwise as favorable, will have preference. Profiles and estimates of the first 60 miles may be seen on application at the Engineer's Office in Memphis. Bidders must furnish satisfactory evidence of their ability to complete the work.

MINOR MERIWETHER,
Chief Engineer.

May 4th, 1854.

To Chief Engineers.

A Gentleman who has had some Eight years Experience in construction of various Eastern and Western Railroads desires a situation as Resident Engineer upon some railway in the United States. The best of references as to Capability and Efficiency can be furnished. Address B. care of John Palmer Esq. East Cambridge, Mass. 17 tf

For Sale.

THE ROSSIE FURNACE AND FOUNDRY, etc., St. Lawrence County, N. Y.—This well known establishment, having attached to it a large and complete Casting House and Machine Shop, with ample accommodations for workmen, and every convenience necessary to the the prosecution of an extensive business, together with valuable Iron Mines and Mining Rights, also Timber Lands, is offered for sale by the proprietor, who retires from the business. The capacity of the Rossie Furnace for making iron, is believed to be unsurpassed by any charcoal Furnace in the country, having repeatedly run up to fourteen tons per day, with 55 to 60 per cent. yield from ores—specular red oxides—coal, per ton, 100 bushels. The same has been in uninterrupted operation for over twenty years, and the reputation of its iron is established throughout the West. The location of these works is in the village and town of Rossie, county of St. Lawrence, N. Y., six miles from the River St. Lawrence, and connected therewith by a plank road. Their cost, apart from premises and water power, has involved an expenditure of over $100,000, and their present efficiency, in every respect, is considered unexceptionable. For further information apply to D. W. Baldwin, Agent, at the works, or to the undersigned.

G. PARISH.
Ogdensburgh, N. Y., April, 1853. 15,3m*

SEYMOUR, MORTON & CO. GENERAL R. R. AGENCY, Office, Metropolitan Bank Building. No 110 Broadway, have to dispose of at private sale, in amounts to suit persons desiring to invest, the following valuable Securities:

LOUISVILLE CITY BONDS, at 30 years
OHIO AND MISSISSIPPI R.R. STOCK, drawing interest.
MAYSVILLE AND LEXINGTON MORTGAGE BONDS, at 24 years.
MAYSVILLE AND LEXINGTON R. R STOCK.
SCIOTO AND HOCKING VALLEY R.R. STOCK.
SCIOTO AND HOCKING VALLEY R.R. FIRST MORTGAGE CONVERTIBLE BONDS.
LOUISVILLE AND NASHVILLE R.R. STOCK.
BUFFALO AND STATE LINE R.R. BONDS.

They are prepared to negotiate contracts for the construction and equipment of Railroads in any part of the country, including furnishing corps of engineers and contractors locomotive engines and cars, railroad bridges. McCallum's patent, railroad iron, chairs, spikes, switch irons, &c., &c.

MONTREAL & NEW YORK AND Plattsburgh and Montreal RAILROADS.

☞ *Open through from Plattsburgh to Montreal.* ☜

Passenger Trains leave Montreal for Plattsburg at 6 30 a.m and 5 p.m., arrive at 8 a.m, and 7.30 p.m.

Leave Plattsburg for Montreal 7.30 a.m. and 4 p.m., arrive a 10 a.m. and 6.50 p.m.

Trains connet at Montreal with Steamers for Quebec, and the St. Lawrence and Atlantic Railroad for Sherbrooke and intermediate station.

Trains connect at Mooers Junction with Northern (Ogdensburgh) Railroad for Ogdensburgh and Lake Ontario Steamers for Lewiston, Niagara Falls and Upper Canadia, and all ports on the Western Lakes.

Trains connect at Plattsburgh by Steamer to Burlington with Rutland and Burlington Railroad and connecting lines for Troy, Albany, New York and Boston, and all intermediate stations. Also with steamers for Whitehall to the Saratoga and Washington Railroad, and connecting lines of road to Troy, Albany and New York.

Passengers will find this route unequelled for comfor and dispatch, and attended with lessf atigue and dely than any other. It possesses moreover the advantage of a short Ferriage of only *fifteen minutes* across the River St. Lawrence at Caughnawaga, which has never been known to freeze, and can be confidently relied upon at all seasons of the year.

☞ Frieght Tarins run daily each way.

For particulars see Frieght and Passenger Tariff.

BAGGAGE *checked through.*

H. W. NELSON, Superintendent.

Old Railroad Iron For Sale.

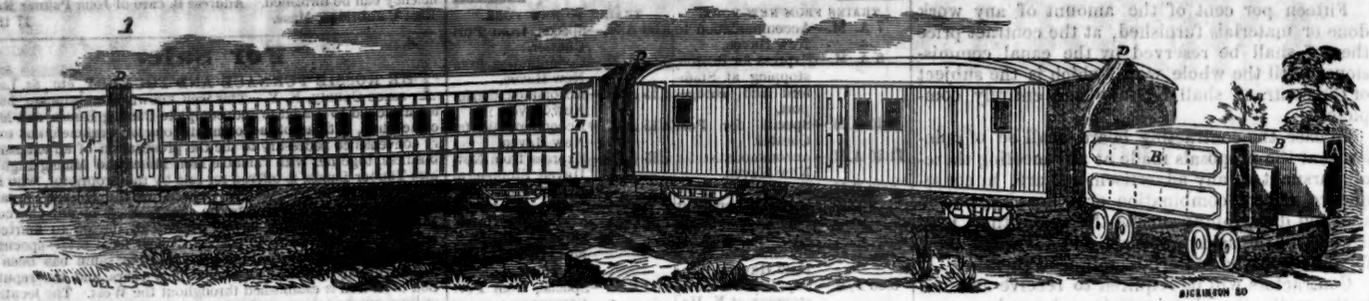
ABOUT 250 TONS, mostly whole bars, flat iron of superior quality. Deliverable at Portsmouth Va. as fast as it can be hauled. Immediate offers are invited, addressed to

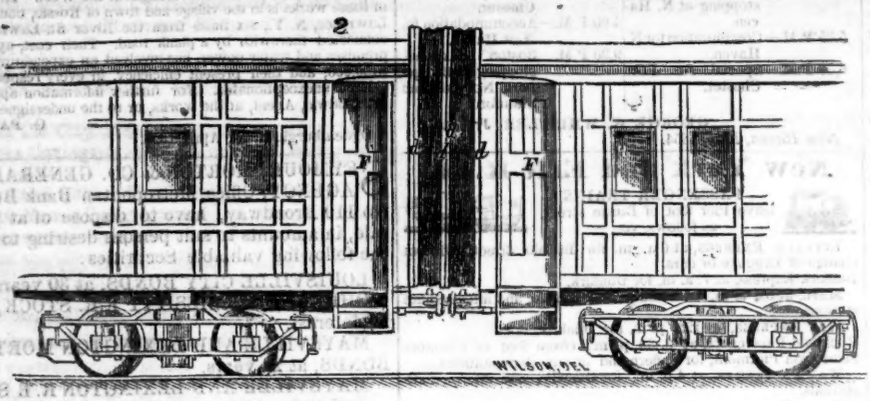
L. O. B. BRANCH, President R. & G. R. R.
Releigh N. Carolina,

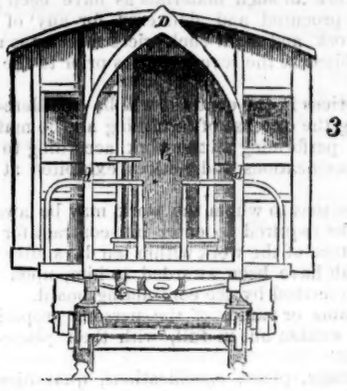
None but the accepted offer will be applied to. 3t.22

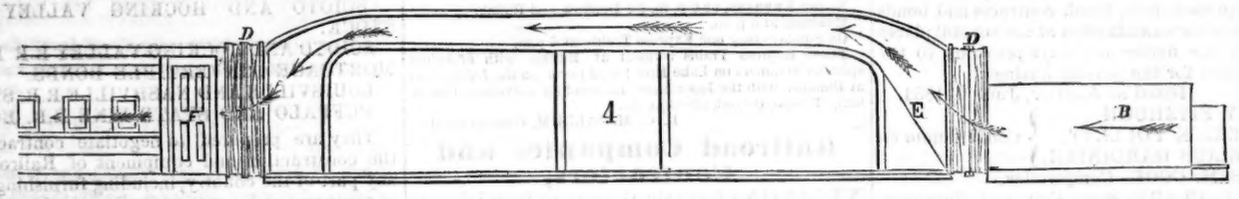
Waterbury and Atwood's Mode of Ventilating Railway Cars, and Excluding Dust, Smoke and Cinders.

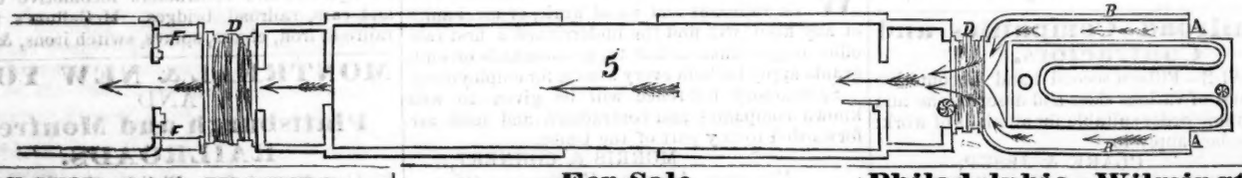
CHARLES ATWOOD, Agent, BIRMINGHAM, CONN.











GROVE CAR WORKS,

HARTFORD, CONN.

MANUFATURERS OF

Railroad Coaches, City Cars, Freight, Coal, Gravel,

and all other descriptions of Railroad Cars.

The above establishment has as great facilities, and turns out as large an amount of work, as any other Factory in the Union.

27tf FALES & GRAY, Proprietors.

FOR SALE.

AN ALLIGATOR SQUEEZER, complete, entirely new, and in perfect order, to be put up at once.

It is of the most approved construction, with cam, cam shaft and pedestal, and with heavy driving gearing if required by the purchaser; and will be sold at a bargain.

For further particulars address

ROBERT BRIGGS, Jr.,

Supt. Rensselear Iron Works, Troy, N. Y.

Also, for sale 7 Dimpfer Patent Fans, 2ft. × 9in. second hand. Apply as above.

Railroad Iron and Chairs.

The Lackawanna Iron and Coal Co, are now prepared with increased facilities to contract for Rails and Chairs at their works at Scranton, Penna.

Address S. T. SCRANTON Prest. at Scranton, or at the office of the Company in New York, 72 Beaver St.

26.tf

For Sale.

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